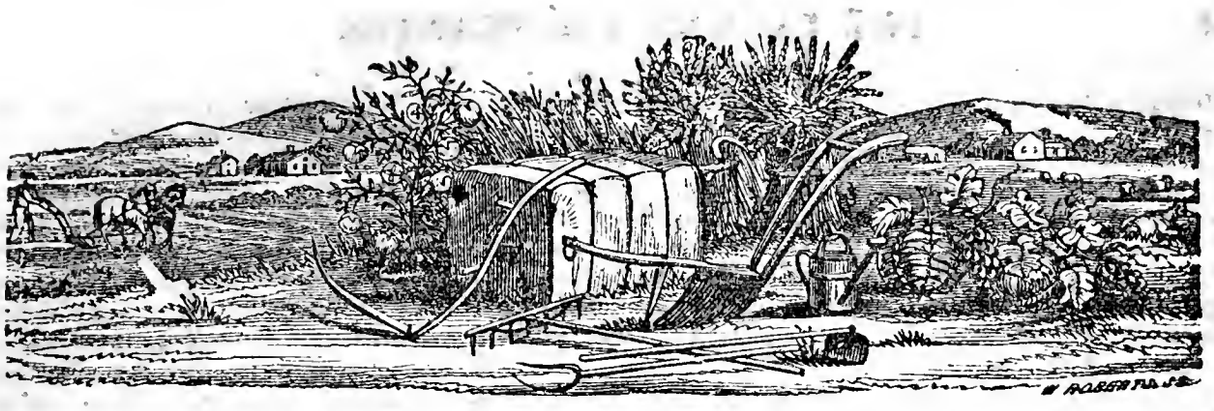

THE FARMER AND PLANTER.

Devoted to Agriculture, Horticulture, Domestic and Rural Economy.

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From the Southern Cultivator.

An Essay on Grasses.

For the Southern Central Agricultural Society.

BY C. W. HOWARD, KINGSTON, GA.

A prominent English farmer, when asked by an American Farmer, "Why there was so little root culture in England, as compared with the continent?" replied, "That the English could not afford it—that labor was so high and their lands so valuable, that a prudent economy required them to adopt a system of farming which would use the least labor with a reference to the constant improvement of the land." Now, land in England is worth an average of $500 per acre, and labor is worth from 30 to 50 cents per diem.

While more labor is used on the European continent in agriculture than in England, still the amount there employed on a given number of acres, is, to an American, astonishingly small. Where labor is needed to perfect an agricultural operation, it is employed without stint. But care is taken that a small portion of the land cultivated requires this labor.—Flemishing agriculture is considered to be the most painstaking and perfect in Europe. Yet the regular labor on a Flemish farm of 100 acres is an average of two laborers. At times, as in hay and grain harvest, an extra force is required. This average would apply to the best farming countries of Europe.

If this system of farming be right where land is dear and labor is cheap, then our system, where land is cheap and labor is high, must be radically wrong, as we cultivate chiefly those crops (cotton and corn) which require the use of the least land with the most labor.

It is possible, perhaps, in some degree to account for the agricultural peculiarity which obtains among us. The Southern colonies were planted with reference to the production of particular articles of export. Our own State was founded with a view to the supply of the Northern country with silk. The colony exhibited the anomalous spectacle for many years of a company of people exporting silk and importing almost every article of food. The agricultural tendency created at this early period, has not been wholly arrested. We, at this time, export cotton and import meat, cheese, butter, &c., from the North and West. We are now a thriving people, but it is in spite rather than in consequence of our mode of agriculture. An incorporation into our own of the Northern and European systems of agriculture, modified with reference to climate and our leading and most valuable staple, cotton, would cause the Southern States to thrive beyond a precedent.

"Cotton is King." He would be worse than a Red Republican, who should attempt to dethrone his sovereign. On the contrary, it is our part to surround the throne with additional munitions of defence, and by all means in our power to render permanent and increasingly to extend the most benificent rule which the world has known.

Dropping the figure, in order to accomplish this result, we must not exhaust, but improve the soil which produces cotton. If we raised our own horses, mules, beef, pork, mutton, wool, cheese and butter, we could so manure our lands that we could raise the same amount of cotton from half the quantity of land now employed for that purpose. The same results could thus be obtained with vastly less labor.—We should have the satisfaction of reflecting that we would leave to our children not denuded and gullied hill sides, but lands which our industry has improved. But to do this, we must incorporate one feature of Northern and European agriculture into our own—that feature by which they improve their lands, appreciate their values, and at the same time receive annual and remunerative returns with the use of a small amount of labor—that feature is the extensive cultivation of the artificial grasses.

It is said, however, that the artificial grasses do not succeed at the South. Neither would cotton, corn, or wheat succeed if put into poor ground and left without after-culture. The valuable natural grasses of the country have, to a great extent, disappeared. Old settlers tell us that they recollect the time when the rich lands of Greene, Morgan and other counties of the State, were covered with a luxuriant growth of pea vine and winter grasses. These grasses, natural to the soil, have been exterminated by the plow. The soil on which they grew has been exhausted. The salts left in woodland by the Indian fires and which are indispensable in grass culture have been taken up and appropriated by a second growth of timber. And now, if we wish to introduce new and artificial grasses, or if we had the seeds of those which have disappeared and desired to renew them, we must replace the salts which have been taken away in the course of years.

Civilized life is an artificial life. The domestic animals necessary to it are, in a sense, artificial creatures and require artificial food. The most necessary item of this food is cultivated grass, which will not grow without artificial aid. It must be properly put into proper ground and properly treated—otherwise an attempt to cultivate it will be attended with failure.

The opinion that the artificial grasses do not succeed with us is greatly dependent upon an improper comparison made between the North and the South. Persons going from closely grazed and parched pastures at the South, in August, to green pastures at the North at the same time, determine hastily by comparison that grass culture with us is useless. But suppose the same persons went from a well laid and green blue grass or clover pasture at the South in March to one of the same kind at the North at the same season, and found the latter stiff frozen or covered with snow, might they not as well say that grass culture is useless at the North? It would be equally as reasonable as in the former case.

Both sections, North and South, are well adapted to certain artificial grasses. The North has the advantage in midsummer. We have the advantage in autumn, winter and spring.—The advantage is greatly on our side. We can use our grasses for a greater portion of the year and with much greater economy than is possible at the North. We save a large portion of the expense of mowing, barns, and winter attention to stock. The cost of one Pennsylvania stone barn, would lay down a large Southern plantation to grass, upon which cattle, sheep and horses may graze during the winter, without the trouble and cost of making it into hay.

The difference between the North and South, as to the artificial grasses, consists, then, not so much in the comparative adaption of either to their growth, as in the use which is to be made of them. At the North, their chief value is for hay. At the South for winter pasture. Our ability to graze our pastures during winter and spring is a very material point. As soon as our grain is cut and the stubble fields are open, the crab grass springs. Our artificial pastures may then be closed until winter. That invaluable product, the crab grass, enables our stock to luxuriate on new grass, while Northern cattle are eating the old grass of the spring.

Nothing is said of the Bermuda grass, as it is a vexed question as to whether this grass, otherwise very valuable, can be controlled. It may not be amiss to suggest in this connection, the plan of paring and burning, (which is common in England) as a means of destroying Bermuda grass and at the same time of enriching the soil. The details of the process can be found in any of the English agricultural works. If this process will answer the end without too great expense, the objection to Bermuda grass as a superior pasture would be removed and it would be a useful auxiliary to the artificial grasses.

The practical question arises, "are there any of the artificial grasses which we can cultivate, which will give us a good winter pasture?"—There certainly are grasses which will answer this end, if sowed in sufficiently rich land and properly treated afterwards. This remark is true of the whole State unless it be the actually drifting sand of the sea board. Land is not sufficiently rich for the artificial grasses, which will not bring twenty-five to thirty bushels of corn, or 10 to 15 bushels of wheat to the acre. The remark is made, not of woodland, but of land which has been previously cultivated.

The soil can be made sufficiently rich without justly charging the expense of manure to the grass sowed upon it. Let the ground be well manured, say for wheat, and grass seed may be sown with the wheat. The increased wheat crop will pay for the manuring, and the land be left in capital condition for grass. No stock should be allowed to go on the field the first summer or fall after the wheat is cut.—Land so manured will usually bring a heavy crop of crab grass after the wheat is cut, which may be made into hay. Thus the laying down of the field in artificial grass costs only the purchase and labor of sowing the grass seeds.

It is a material error of the persons at the South who have attempted grass culture, that they do not distinguish between the growth of a crop of grain and a crop of perennial grass.—The former being an annual, grows rapidly and

smothers weeds. The latter being perennial, matures slowly and lets in and is apparently smotherd by weeds. This occurs the first year, and to an unpracticed eye the field thus sown would seem to be an utter failure. A really good stand of the narrow leaved grasses wears this appearance. In consequence of it many persons have plowed up their ground in despair and have hastily concluded that the grasses will not grow with them. But this is a great error. The first shoots of the blue grass, for instance, are as fine as a fine needle and continue so during the first year. But the next year after it has shed its seeds, it spreads with almost magical rapidity. The weeds which cover the ground during the first year's growth of the grass, are of service, shading the ground in summer and protecting the young grass during the first winter. The next, season being for the most part annuals and requiring the earth to be stirred before their seeds will germinate, they measurably disappear and leave the soil to be occupied by the grass.

In the preceeding remarks, it is supposed that grass seeds are sown in land already cleared and made artificially rich. The most valuable use of the artificial grasses at the South is for woodland pasture. A certain proportion of woodland must be reserved on every plantation.—Under the present system this body of land is almost totally useless, save for timber and fuel. The amount of money invested in land of this discription in this State must be counted by the millions. This comparatively dead capitol may be made to yield a heavy interest annually, by the use of the artificial grasses. Let the rail timber sufficient to fence it be taken from the woodland of a plantation—let the rest of the trees be slightly thinned, taking care to leave the mast-bearing trees, as chesnut, whiteoak, &c—let the under be grubbed and this with the tree laps, be burned in a small heap, so that the ground may receive a general dressing of ashes—let the ground be stirred with a plow, or a harrow which is the better of the two—let grass be sown before a rain or during a drizzle or on the snow and left whithout covering—let no stock be suffered to go on the ground for a year, or until the grass has gone to seed. Afterwards this woodland pasture will become one of the most valuable parts of the plantation.—Every acre of this woodland is richly worth fifty dollars. in no legitimate form of business can fifty dollars be made to yield a better interest.—The remarks which were made as to the amount of fertility, either natural or artificial as indispensable to successful grass culture on cleared lands do not hold good in regard to woodland. There is scarcely any woodland so poor that it will not produce good grass, if properly treated.—Pine land should be excepted, as no artificial grass will grow under the shade of the pine tree. Ashes from the fires in preparing the ground will cause the grass seeds to germinate quickly and the roots of the plant to take firm hold of the ground. Afterwards as the land, properly pastured, continues constantly to improve, the grass also improves. Woodland not worth clearing for corn, may be converted into excellent pasture. The only manure necessary is the ashes carefully spread upon the surface. The most broken land answers equally well for woods pasture as that which is level In fact, so far as summer pasture is concerned, the broken land is the better of the two. as it receives the direct rays of the sun during a shorter period of the day.

The farmer who is well provided with winter woodland pastures need provide no protection for his stock, except that portion of it which is necessarily kept in the yards for constant use. Occasionally thickets left upon the south side of hills, will give the stock an ample covering. Cattle in a muddy farm yard, without covering over them, are pitiable objects. In the woods they can always provide for themselves. Hogs in these pastures thrive and fatten, as they have not only the grass, but a winter's supply of acorns—a supply in thinned woods which so rarely fails, as to make failure an exception. The sheep exhibited by me at this Fair are Merinos, and they have had neither shelter nor food except that which they have found in their pasture. Their only cost has been their salt and the interest on the land pastured by them. Grain of any kind has never been fed to them, yet they are always fat and even at mid-winter, and their wool will compare in fineness and quantity with the best Northern flocks from which the stock was originally selected. Mules and colts will thrive without other cover or food than that which they find in a good winter woodland pasture. With a proper supply of such pastures the farmer may have it in his power to render his cotton and grain lands indefinitely rich.

We have heard so much of the "blue grass pastures of Kentucky," that persons are inclined to attach some mysterious fertility to the soil of Kentucky, by which this grass is spontaneously produced. The blue grass is not a native of Kentucky. Its seeds were originally sown by man. It has become natural to the soil, by its light seeds being scattered in every direction by cattle, the winds and birds. The same result will occur in time wherever it is extensively sown. It is now occuring on this farm. It is taking possession of a meadow where it was not sown and where it was not wanted, its seeds having been brought by freshets more than a mile from the lands of a neighbor. Everywhere through the upland woods on this farm, bunches of Blue Grass, Herds Grass and Clover can be found. This result has followed in about ten years. In perhaps ten years more, if the woodland be thinned out, grubbed and plowed, the Blue Grass will probably appear as in Kentucky, of course, varying in the richness of the pasture with the richness of the soil.

The use of the artificial grasses is the basis of a mixed husbandry, which has accomplished for the farmer such great results elsewhere. It will be an era in our history, when it is fairly introduced into Georgia. Not having large cities, the income of the planter, prior to our railroad facilities, was derived almost exclusively from his cotton. But now while we improve our lands by the manure which this sys-

tem affords and thereby increases our cotton crop, all other farm products have become saleable. We have the sea coast on one hand.—Charleston and Savannah are now exporting wheat and flour to Europe. Next year we shall have direct railroad communication with the Northern cities via Knoxville, through which we can send beef, mutton, pork and wool at a less expense than they are now brought to them from the West. The superior mildness of our winters gives us a great advantage over the West and Northwest in stock raising. This is not the general opinion, but an opinion is not necessarily true because it is general. Let the Southern mind be directed to this subject as it has recently been directed to others, and it will be found that we have great facilities for raising stock.

It was long supposed that we could not raise winter fruits, yet our winter Apples and Pears quite equal the Northern.* It was long supposed that we could not make Wine, yet a fair experiment has proved this to be a wine growing country. It was supposed that we could not make malt liquors, yet excellent beer is now made in our State. It was supposed that the wool of the Saxon and Merino Sheep would deteriorate in our warm climate, yet at the World's Fair in London, Southern wool was the finest on exhibition.† A fair and full trial will show that we can raise good winter grasses, and with them our facilities for raising economically and successfully the various kinds of domestic animals, cannot elsewhere be exceeded.

In connection with these remarks, which are merely suggestive, and which might be greatly extended, specimens of seeds of 18 different artificial grasses grown by the writer, are submitted to the committee. These seeds have all been matured on this farm, except the Sainfoin. The comments made upon them are the result of twenty year's observation of the culture of the grasses, and after an experience of residence in Baldwin and Cass counties—two regions of the State materially differing from each other, both in soil and climate.

No. 1. *Red Clover.*—This grass is is so well known as to reqnire no extended description of its general value and habits. It will grow in any part of the State if the soil he made sufficiently rich, and if not too heavily grazed during the heat of summer, The chief difficulty in its culture, is obtaining a good stand. This difficulty most generally arises from the poverty of the ground in which it is sown. The young plants not having sufficient nutriment for an immediate and vigorous growth are smothered by crab grass or weeds natural to the soil. If the time of sowing be selected, which will enable the young plants to strike their tap roots into the soil, before the weeds begin to grow, afterwards they defy all opposition. The best season for sowing clover is the time of sowing turnips or very early wheat. When once fairly established, the value of red clover can hardly be exaggerated. Ashes, leached or unleached, are the best manure for it where lime is too expensive. Gypsum greatly stimulates its growth, using only one bushel to the acre. It is now settled that success in the growth of clover is not a question of climate, but rather of soil. The splendid clover fields near New Orleans are proof of this. The lands of Southwestern Georgia, probably could not be surpassed in their yield of clover. I have seen it near Savannah and in Baldwin county as fine as I have ever seen it in New or old England. Everything depends on the preparation of the soil, time of sowing and subsequent treatment. At the North, the danger is that it will be frozen out—at the South, that it will be burned out. The one danger is no greater than the other. Proper precautions will guard against both.

Red Clover has an especial value to us at the South, where bacon is so much used in feeding our negroes. We have a general idea that clover is a great reliance in Kentucky in raising those large droves of hogs which are annually brought into this State. But the full value of this plant for this purpose is not appreciated. It may not be amiss to quote two agricultural authorities of undoubted veracity, showing the number of hogs which may be raised upon an acre of clover. Dr. Deane, the father of improved farming in New England, says, "I suppose that one acre of rich land in clover, will support twenty or more swine, large and small together, through the summer and bring them well forward in their growth."

Arthur Young, the father of improved farming in Old England, states that "he pastured sixty-four swine of various sizes on two acres of clover ground." If the half of this result can be obtained in Georgia, a very few acres of clover would raise sufficient pork for a large plantation. The large Mackay boar, weighing 500 pounds, exhibited by me at this Fair, has been fed entirely, during the spring and summer, on clover and other grasses, having eaten no grain of any kind except that which he found when the stubble fields were first opened. With us, clover bears summer pasturing better than the spear grasses, observing the precaution not to begin to pasture it until it is in blossom, and never to pasture it so closely that the roots should be exposed to the summer's sun. I have now 20 acres of clover which was mowed in the spring, which has not been grazed since, and which is now two feet high, and upon which stock will not be turned until after Christmas. From that time until spring it will support abundantly one cow or five sheep to the acre.

(CONCLUDED NEXT MONTH.)

*The Southern Seedling Apples, such as Carter, Nickajack, Camak's Sweet, Equinetely, &c., &c., are admitted even by some of the best Northern Pomologists, to be *superior* to theirs; and a fair trial will establish the same superiority for our Pears.—EDS. SOUTH. CULT.

†Since writing this Essay, it has been proved by a lady of Warren county, that an excellent article of merchantable cheese can be made even in the exhausted portions of the State. The Cheese exhibited by her at the Fair was equal to the best Northern articles.

Rest satisfied of doing well, and leave others to talk of you what they please.

For the Farmer and Planter.

Report,

Read before the Fishing Creek Agricultural Society, on Rail Roads in connection with Agriculture.

Mr. President:—According to an appointment by your Committee, I read an Essay on the effects of Rail Roads on agriculture; or in other words, are Rail Roads beneficial to the agriculturist? Therefore, my views will be given in a short and brief manner.

When our crops are made, the first object is, to gather and house them; the next object is, to get sale for them—the cheapest and most convenient way to get them to market, and the most profitable.

The farmer, to attend to his plantation and things thereon, as they ought to be attended to, has but very little time to lose; and before Rail Roads got into operation, our products were mostly taken to market by wagons—a great loss of time, and a very severe task for both man and beast. (If the beasts had a word to say in it, they would say, Rail Roads all the time.)

Mr. President, I have been a wagoner; or in other words, one that has hauled produce to market, and goods and groceries back by wagon and horses, and have some practical experience in the business, and every one that has tried it, knows that it is a very laborious operation, and a severe trial on the constitution of both man and beast. When the roads were good, cotton could be taken by wagons to Charleston, at $1.50 per hundred, or $6.00 per bale; to Columbia, at 50 cents per hundred, or $2.00 per bale. But if the Fall, Winter or Spring was wet, the same could not be taken to Charleston for less than $2.00 or $2.50 per hundred, or $8.00 or $10.00 per bale, and to Columbia for less than $1.00 per hundred, or $4.00 per bale, and goods and groceries brought back at the same rates. Then the owner of the wagon and team generally was the loser; also the high freight must indirectly come off the farmer. The merchant generally taxes the high freight with his per centage, adds them on his goods and groceries, to save himself, and who pays it?—Why, sir, the farmer. But now since the Iron Horse has to do the business on an Iron Road, good, bad, dry or wet roads does not effect his travel, or raise his rate of freights in the least.

When the Rail Road was completed from Charleston to Columbia, it brought our market within 60 miles of home, with as good a market as it was at Charleston, 170 miles off, and the trip could be performed in 6 or 7 days, instead of 21 or 24 days. When the road was completed to Winnsborough, 30 miles nearer, the market was as good as at Columbia; and now when we have got our market near our doors, and among our friends and acquaintances, by the progression of our Rail Roads, the prices are not much short of the Charleston market.

In the days of wagoning, grains were almost dead capitol on our hands, and a great deal more so to those in grain growing States. But now, sir, the Iron Horse can puff along with ease and speed and distribute it (the bread of life) amongst us, from the Atlantic to the Pacific Ocean, and from the lakes to the seaboard. Sir, in the years of '45 and '46, had it not been for Rail Roads, many a fine horse and mule *would have flown high up in the air*, as grain of every kind was nearly out of our reach, being made mostly in the North, West, and Northwestern States. And now, Mr. President, if we would attend more strictly to the raising of grains and our meats, as we have the facilities of transporting the surplus by rail roads, here and there and every where, we would greatly enrich our lands, live more independent, and make more; than by our old system of planting all cotton, not much grain, have poor horses, mules, and no hogs, and but little money to buy with.

Mr. President, I think you cannot but see at a glance, the great advantages derived by rail roads, especially to the farmer. The long laborious journey of 170 miles to market of 21 days, at least, shortened down to 10 miles and one day's trip, and have got nearly as good a market for our cotton and our surplus grain, (a drag on our hands before we had rail roads) as much, if not more, and sent when and where we wish. But man is still an undeserving being, not easily satisfied. I heard a neighbor of mine say some two or three years ago, when the roads got a little bad between here and Chesterville, that he did believe if the market was at Lewis' Turnout, that he could not get there with his waggon and team; when once he thought nothing of going to Charleston, hauling 7 or 8 bags of cotton and food to do 4 or 5 horses for 21 days; and now could not think of starting to Chester with four or five bags and food enough to feed his team at 12 o'clock, and get home that evening.

Mr. President, it is so plain to me that the rail roads are of the greatest importance and the most useful, particularly to the farmers in general, especially to the farmers who are mod-

erate in circumstances, who can conveniently and easily take his own produce to a market near at home, sell it himself, realize all the profits of his labor, buy his own groceries, and be better satisfied, than if you or I had taken it to Charleston or Columbia, and done our best for him, that I will conclude this essay with a few remarks.

I would say to those who are opposed to rail roads: We'll take the trip to Columbia from this place—six day's travel to go and come, two negroes, five mules and wagon. To Chesterville, one day's travel to go and come, one negroe and the same waggon and team; your crop of cotton 40 bags, and your surplus grains, 100 bushels, which would be at 8 bags of cotton to the load, and 50 bushels of grain to the load—7 loads to carry to market. The advantage of the trips are five days each, which, multiplied by the 7 loads, give you a saving of 35 days for other purposes on your plantation. Now, sir, put those two negroes, team and wagon that would have to be on the way to Columbia, to hauling muck, leaves, dirt, out of branches or creek bottoms, those five days on each trip, on your exhausted fields, and see the result. Infive years your lands would be enriched 100 per cent., and in ten years two hundred per cent. But because you have this leisure time, you plant one-third—yes. one-half more land than you can work, that shows you plainly and satisfactorily, that you have planted too much by the yield you receive; and that is not all. Your lands, by neglect, are getting worse, by washings and lack of fertilizing or vegetable matter. Then blame the rail roads for carrying off the surplus crop of grains out of the country. Sir, those that make grain for sale, see that by sending it off, it is the most profitable, and they can get the cash for it, will do so, as cash goes ahead of credit; in this trade, the man that pays the cash is the man.

Now, Mr. President and members of the Fishing Creek Agricultural Society, put your shoulder to the wheel, then call on Hercules for help—not say that any improvement (as this is an age of progression) of this or that are injurious, when you see the good result thereof, but break up your fallow and other lands close and deep in the fall; haul muck, leaves, or some other fertilizing matter on your exhausted lands; ditch and lay off your fields so as not to wash; plant not too much, feed well, work systematically, live economically, say, we belong to a class of men called farmers. We'll attend to our own business—other classes can attend to theirs. Rail roads are a special benefit to us, and say with the Grand Jurors of Newberry District, our bank is a nuisance—we'll make our own bread and meat—eat it at home; wear fine clothes if we feel so disposed; live free and independent, and be contented with the good things that GOD has been pleased to give us.

JOHN G. B. GILL.

April 9th, 1858.

For the Farmer and Planter.

Fish---Defence.

FRIEND SEABORN:—In the April issue of the Farmer and Planter I find that my article on Pisciculture has been *pitched into promiscuously* by some new-born naturalist, who styles himself "Piscator." Now, Mr. Editor, I have always been one of those who believed that the "rose would be as sweet by any other name;" or that a trout could be reared as successfully, whether it were called "*Carolina* Trout," Bass, or "*Grizzly Salmond*," (by which euphonious and classic name, or something very much like, Piscator would have you call it.) But this new-born naturalist can subscribe to no such doctrine, or he would have spared me the necessity (and to me a very irksome one,) of replying on this occasion. He evidently imagines that *I* consider myself one of the *new-born naturalists*, also, and that in writing my article on fish breeding, *I expected* to take rank amongst the litterati of Christendom. Now, sir, I wish it *distinctly* understood, that I attempted no scientific essay, frought with "*highfulalten*" names, extracted from the language of men who have died and gone to ——, ages ago. But that being a plain man, I endeavored, in a plain way, to make plain, to plain men, (to which class, however, *new-born* naturalists do not belong,) what little information and experience I had myself acquired in a plain way, and that should it be noticed at all, it would be by the pen of some one like myself, who felt a great interest in this pet idea, and who was prompted, not solely by the desire of having a piece in the papers, but of receiving and communicating information. And the only desire that I recollect ever to have expressed in regard to my article, was, that it might steer clear of all *new-born* naturalists and fault-finders; for I was aware that it was customary with this class of literati, to originate as little as possible (for fear of being shot at themselves), whilst at the same time they were always at their "*stands*," awaiting shots at others. And I do think that had "*Piscator*" given the information of which

he would have you think him possessed, (from his style and signature, living, as he does, in a fish country,) he probably might have succeeded in an effort for which he certainly would have received more thanks than for his "broad sides at me;" and although I am honest enough to say that *one of his shot* did hit me, I will also say (for the benefit of my friends at a distance), *I ain't bad hurt; 'twan't bigger than a mustard seed.*" I am first taken "*through*" for calling the "GRIZZLY SALMOND," or "GRIZZLY," (as "Piscator" calls it for short,) a Bass, and also for giving Dr. Backman as authority for so doing. Now, sir, while I do consider Dr. Backman as *authority* for anything that he says on this subject, it is nevertheless due him, as well as myself, to say that I unintentionally misquoted him on the occasion on which "Piscator's "*mustard seed*" gives me such a dig in the "*short ribs.*" In Dr. Backman's very able and highly instructive article on fish breeding, read before the State Agricultural Society, he says: "It should be remembered that this very superior fish is not a true trout, *but is more nearly related to the bass.*" Now, sir, it is a very easy matter for one (whose memory is not the best), having read the Doctor's article, and then recurring to this language, which he is supposed to have used, to be deceived as I was. "Piscator," you will observe, has, in his over zeal for the reputation of "*his friend,*" *unfortunately locked horns with him himself.*" He says that *it has no congener in natural history nearer than the true* SALMO. Now, sir, it strikes me that "Piscator" has himself sinned to a greater degree than I have. He next objects to having it called "Carolina trout." By way of explanation, I will say that it was not my intention to attach this name to it permanently, as "Piscator" imagines, but simply to distinguish it in my article from the trout of other writers, from which it differs entirely; and I so stated it. Mr. "Piscator's" nerves are considerably shocked that it should "*be called by any other than its proper name.*" It is "*true game,*" *and was first eaten by Ponce de Leon and Billy Bowlegs*" (and he might have added by Florida alligators before either); and hence he concludes that it should not be called "Carolina."

Mr. Editor, I shall now conclude with this request, that should "Piscator" wish to pursue the subject any further, he will come out in *propria persona*, and "*face the music;*" for from the nature of circumstances, he compels me to show "my hand," and I do not regard it as giving me a "fair hack," if he keeps the Everglades, whilst I am bound to fight on open ground.

T. W. WOODWARD.

Winnsborough, S. C., April, 1858.

For the Farmer and Planter.

Weeds.

MR. EDITOR:—I beg leave to give you below my address in full for an article intended for your last number. I was aware of the rule among journalists, but supposed that in a purely agricultural article, which did not contain any personal allusion, whatever, the rule would not apply "ratione cepata." I do not regard the article as possessing any value, but am anxious to have a full discussion of the subject, which I regard as the most important which has been broached in any agricultural paper for years. I am happy to hear your purpose to continue the warfare until every weed has been banished from the State.

If turning land out to weeds, as is done in the common system of "rest," be indeed injurious, it is a most important fact to the agricultural interest of the State, and should be fully known; for I venture the assertion, that not less than one-fourth of all the arable land of the State is annually subjected to this treatment. By all means, let us know how the growth of *any* vegetation upon soil, without being removed, can be otherwise than beneficial. Some plants are doubtless more ameliorating than others, but I again venture to assert that there is not now known any plant, which, in our climate and soil, possesses such advantages over the common weeds, as to compensate for the labor of seeding. I am aware that in purely grain countries, weeds are justly esteemed nuisances from the trouble they give in harvesting, but in a cotton country, they are emphatically the farmer's friend; for it is well known that when land is infested with troublesome grasses, there is no more cleansing process than to turn it out to weeds.

Again, where land is very dear, and labor comparatively cheap, it is found expedient to employ some ameliorating crop, which is, itself, valuable. So much for your Chinese argument. But I fear I shall be claiming too much space in one number of your paper, and must close. Respectfully yours,

E. E. E.

Society Hill, May 5th.

REMARKS.—E. E. E. will accept our thanks for his second communication, in which he gives us his name in full, which is in accordance with our rule—not that we desire the name, unless agreeable to the writer, to go to the public, but if no other reason, we think it a courtesy at least due the publisher of *any* paper, and is, so far as we know, universally required.—We accede to ladies, only, the right to fight in the dark.

Below will be found the communication of E. E. E., on weeds, spoken of in our last. Shall be glad to hear from him at all times, especially on this subject, as he may encourage his friends to stand their ground till we can give them a few more broadsides.

For the Farmer and Planter.

"Rest and Weeds."

Mr. Editor:—We have watched with some interest, the battle of "weeds," of which your excellent journal has, for some time past, been the field. We are a warm advocate of this much abused plant, regarding it as the planters' best ally in opposing that sterility which almost necessarily follows our clean system of tillage. Your position of hostility to weeds and necessarily to the common system of resting land, strike us as against all science, as well as experience. How did our globe become originally fertile but by that very process which we wrongly call rest? Geologists tell us that the globe was originally a map of rocks, and that these gradually disentegrating by atmospheric influence, became the basis of all soils; that upon this simple soil the ruder forms of plants sprung up—plants we fancy to which the hog weed and fennel would be marvels of vegetable development; that these decaying and becoming incorporated with the debris of the rocks, formed a better soil, giving life to a higher form of vegetation, which in turn was added to the cumulative fertility of the mass. And thus has the process ever since gone on. The fertility of the different soils resulting in the main from the original rocks which composed their basis. Now, when man comes in with his cultivation, he but arrests this benign process of nature. So long as he takes crops from his soil without adding anything in the form of manure, exhaustion must follow; but as soon as he steps out of the way—gives up his fields to rest, nature again takes up the fertilizing process, and the rapidity of restoration will depend upon the degree of exhaustion which has taken place in the soil, and the original character of its basis. This theory is entirely sustained by the experience of every one. Who has not observed the improvement which takes place in the corners of fences—rapid where the soil is rich, and when poor or exhausted, slower but still steady, while the cultivated fields are becoming less and less productive? The whole process of the formation of good soil from the barren subsoil, may be observed upon ditch banks or upon the levees thrown up to protect our river lands. At first they are entirely barren, but soon a coating of grass is formed, next weeds appear, then shrubbery and trees, and thus in comparatively a few years, that which was a yellow inert mass, becomes a black mould teeming with luxuriant vegetation. We must concede, of course, that the improvement in these cases is more rapid than we have ever experienced, or must expect in our cultivated fields, and this to our mind must be aseribed to two causes: First, the subsoil which is thrown out is in a virgin state. Having been beyond the reach of cultivated or natural crops, it possesses intact all the inorganic elements necessary for vegetable life. Secondly, from the loose and spongy surface which these banks present, they must readily absorb carbonic aeid and ammonia from the atmosphere, and thus become early and largely prepared to sustain vegetable life. But what takes place here, certainly does take place in all rested soils. Nature seeks to restore that which man has taken away. But like a patient recovering from disease, the strength regained is in proportion to that possessed before.—

It is scarcely necessary that I should remind any of your readers why this improvement occurs—that plants feed upon the asmosphere as well as upon the soil; so that when they decay, something more is returned than was taken from the soil. Again, not only do plants feed upon the soil proper, as well as the atmosphere, but they send down their roots into the subsoil, seeking their mineral elements where they abound most, and thus by the process of vegetation, the soil holds tributary both the atmosphere and its own subsoil. Seeing, then, Mr. Editor, this simple fertilizing process of nature, and that weeds are her favorite instruments in the work, it seems rather ungrateful to stigmatize them as pests. That they are sometimes troublesome in the grain field, may be true, but the cotton planter would do well to exchange for them the greater pest of grass.

Now it frequently happens that nature may be assisted by art, instead of leaving her to work in her own way and with her own tools, results may be more expeditiously obtained by supplying her with better tools. Hence in countries where land is high and labor comparatively cheap, enlightened policy has taught that where the elements of fertility are not supplied in the direct form of manures, it is always expedient not to rely upon the spontaneous vegetation of the soil, but to furnish a crop which, by its greater capacity of feeding, both upon the atmosphere and subsoil, will more rapidly effect the work of restoration. But with us the case is far different. We have

cheap land and comparatively high labor, and we doubt whether any crop which could be put upon the land, possesses such advantages over the indigenous growth of the soil as to compensate for the labor of seeding.

Some of our weeds (the hog and star weed, for example,) possess those characteristics which would indicate them excellent renovators of the soil—a spongy leaf and stem, and a tap root of very considerable length. Edmund Ruffin, in his enthusiastic admiration for the field pea, styled it the "Clover of the South," and from it anticipated the highest benefit to Southern agriculture. But even he admitted that where the soil possessed but a small degree of fertility, it was policy to rely upon the spontaneous vegetation.

I have thus hastily spun out a longer article than I intended, and rather a long one for my first contribution to any agricultural paper.

E. E. E.

Society Hill, April 8th, 1858.

Lard and Resin for Tools.

"A penny saved is two pence earned."

Take about three pounds of lard and one pound of resin. Melt them together in a basin or kettle, and rub over all iron or steel surfaces in danger of being rusted. It can be put on with a brush or piece of cloth, and wherever it is applied it most effectually keeps air and moisture away, and of course prevents rust. When knives and forks, or other household articles, liable to become rusted or spotted, are to be laid away, rub them over with this mixture, and they will come out bright and clean even years afterwards. The coating may be so thin as not to be perceived, and it will still be effectual. Let every one keep a dish of this preparation on hand. As it does not spoil of itself, it may be kept ready mixed for months or years. *Mem.*—Fresh lard, containing no salt, should be used. Rosin is a cheap article, and may be obtained almost anywhere for four to six cents per pound.—*American Agriculturist.*

Nicotine.—This peculiar principle is a product of leaves and seeds of tobacco, by infusing them in acidulous water, adding lime, and distilling, and then washing the product with ether, when an ethereal solution of nicotine is obtained. One drop will kill a dog. It causes the pupil of the eye to contract, has a bitterish acrimonious taste, and a pungent smell, and on the whole is one of the nastiest things in creation. It is composed of 73-26 per cent carbon, 9-25 per cent of hidrogen, and 17-09 per cent of nitrogen. It is related to a class of bodies called vegeto-alkalies, and is capable of uniting with an acid. On the human brain it produces a soothing effect, which is thought very pleasant, but can never be considered otherwise than unhealthy.—*Scientific American.*

Experiments with Artificial Fertilizers on Potatoes.

Last season, we made some experiments on potatoes, with various artificial fertilizers. The soil selected for the purpose was a light, sandy loam, which has been under cultivation for many years, and has seldom ever been manured.—It was a two year old clover sod, plowed about the first of May, and harrowed till in excellent condition. The potatoes were planted May 22, in hills three and a half feet apart each way. Two or three potatoes were planted in each hill, according to size. Each experiment consisted of five rows, with one row between each plot left without manure. The following table will show the results of the experiments:

Number of Plot.	Description of Manures used, and quantities applied per acre.	Yield of Potatoes per acre, in bushels.	Increase of Potatoes per acre, in bushels, caused by manure.
1.	No manure.....	95	
2.	150 lbs. sulphate ammonia.	140	45
3.	300 lbs. superphosphate of lime.....	132	37
4.	150 lbs. sulphate of ammonia, and 300 lbs. superphosphate of lime.....	179	84
5.	400 lbs unleached wood ashes	100	5
6.	100 lbs. plaster, (gypsum, or sulphate of lime,).....	101	6
7.	400 lbs unleached wood ashes and 100 lbs. plaster..	110	15
8.	400 lbs. unleached wood ashes, 150 lbs. sulphate of ammonia, and 100 lbs. plaster.....	109	14
9.	300 lbs. superphosphate of lime, 150 lbs. sulphate of ammonia, and 400 lbs. unleached wood ashes,.....	138	43

The superphosphate of lime was made expressly for experimental purposes, from calcined bones, ground fine and mixed with sulphuric acid in the proper proportions to convert all the phosphate of lime of the bones into the soluble superphosphate. It was a purely mineral article, free from ammonia and other organic matter. It cost about two and a half cents per pound. The sulphate of ammonia was obtained from London, at a cost of about seven cents per pound. The ashes were from hard wood.

The manures were deposited in the hill, covered with an inch or two of soil, and the seed then planted on the top. Where superphosphate of lime or sulphate of ammonia was used in conjunction with ashes, the ashes were first deposited in the hill and covered with a little soil, and then the superphosphate or sulphate of ammonia placed on the top and covered with soil before the seed was planted. Notwithstanding this precaution, the rain washed the

sulphate of ammonia into the ashes, and decomposition, with the loss of ammonia, was the result. This will account for the less yield on Plot 8 than on Plot 2. It would have been better to have sown the ashes broadcast, but some previous experiments with Peruvian guano on potatoes indicated that it was best to apply guano in the hill, carefully covering it with soil to prevent it injuring the seed, than to sow it broadcast. It was for this reason, and for the greater convenience in sowing, that the manures were applied in the hill.

It is well known that Peruvian guano is an excellent manure for potatoes. In the same field on which the above experiments were made, two acres were planted with potatoes, in 1852, without any manure, and two acres with 300 lbs. of Peruvian guano per acre, sown broadcast. The two acres without manure produced 238 bushels, and the two acres dressed with guano 410 bushels, or an increase of *eighty six bushels per acre.*

All our commonly cultivated crops contain precisely the same elements, *but in very different proportions.* Now, it is very desirable to know what element is required in the greatest quantity for any particular crop. We have repeatedly shown that an analysis of the plant affords no conclusive evidence on this point. We can obtain this information only by actual experiment with the different elements of crops. Barn-yard manure contains *all* the elements of plant-food; and when an increase of produce is obtained by its use, we are unable to determine which element or elements had the most beneficial action. The same is true of Peruvian guano, which also contains more or less of all the elements of plants, though in very different proportions from barn-yard manure. When we get an increase of 86 bushels of potatoes per acre from an application of 300 lbs. of Peruvian guano, we cannot attribute the beneficial effect, with any degree of certainty, to any particular ingredient. It is true that Peruvian guano contains a large quantity of ammonia and phosphate of lime, and a very small amount of the other ingredients of plant-food, and any marked effect produced is in all probabiliy due to one or both of these substances; but to which, we cannot determine, without resorting to experiments with each of them separately and combined. We believe the above experiments are the first which have been made on ptoatoes, for the purpose of determining this interesting point. They were instituted not for the purpose of ascertaining whether sulphate of ammonia would be a profitable manure for potatoes, but whether ammonia was required for the maximum growth of the potatoe, and in what quantity. This fact being ascertained, we can use such manures as afford the largest quantity of ammonia at the cheapest rate. And the same is true of phosphate of lime, potash, or any other ingredient of plants.

It will be seen, by reference to the table, that 150 lbs. of sulphate of ammonia per acre gave an increase of 45 bushels of potatoes; 300 lbs. superphosphate of lime, an increase of 37 bushels; and the two combined, on Plot 4, an increase of 84 bushels. The ammonia and superphosphate sown seperately both give considerable increase, but they have a much greater effect when sown together, although the total increase is nearly the same from the same quantity of manure in both cases. The result shows that Peruvian guano—which contains both phosphate of lime and ammonia in considerable quantity—would be a much better manure for potatoes than either superphosphate of lime or ammonia alone. These experiments therefore confirm the opinion of practical farmers in regard to the value of this manure for potatoes.

The ash of potatoes consists of about 50 per cent. of potash, and this fact has induced many writers to recommend ashes as a manure for this crop. It will be seen, however, that in this instance at least they have very little effect, 400 lbs. giving an increase of only five bushels per acre. One hundred pounds of plaster per acre gave an increase of six bushels. Plaster and ashes combined, an increase per acre of 15 bushels.

One fact is clearly brought out by these experiments: that this soil, which has been under cultivation without manure for many years, is not, relatively to other constituents of crops, deficient in potash. Had such been the case, the sulphate of ammonia and superphosphate of lime—manures which contain no potash—would not have given an increase of 84 bushels of potatoes per acre. There was sufficient potash in the soil, in an available condition, for 179 bushels of potatoes per acre; and the reason why the soil without manure produced only 95 bushels per acre, was owing to a deficiency of ammonia and phosphates.

In enriching the soil for potatoes, therefore, the principal object should be to provide a sufficient quantity of ammonia and phosphates.—Practically, we may confine our attention to the supply of ammonia; for there is no economical way of providing this "spirit-like essence of the farm," which does not at the same time furnish an abundance of all the other elements required by the plant. Of all commercial manures, Peruvian guano is undoubtly the cheapest for potatoes. Of ordinary manures made on the farm, hen dung stands first, and hog manure next, inasmuch as hogs are fed on foods containing much nitrogen and their manure the reforecontains much ammonia. The manure ought to be thoroughly decomposed, but it should be fermented in such a way as to prevent loss of ammonia and to retain all the salts of the urine.

In the *Genessee Farmer* for March, 1856, we stated that no plant enriches the soil so much for potatoes as red clover. This deduction from practical experience is fully sustained by the above experiments. A clover sod, plowed early in the spring and thoroughly decomposed, would furnish the potatoes with a considerable quantity of ammonia, though probably not sufficient for a maximum crop.

We may remark that no difference could be perceived in regard to the soundness of the potatoes grown by the different manures. Putrescent manures may have a tendency to increase the rot; but when the manure is thoroughly decomposed and intimately incorporated with

the soil, we should apprehend no such effect.

[*Genesee Farmer.*

New Process for Preserving Timber.

Among the expedients adopted for the purpose of the decay of wood, the following, by the eminent French chemist, Dr. Boucherie, seems worthy of special attention. The following is his method of operation:

After the tree has been felled, a saw-cut is made across the center through about nine-tenths of the section of the tree. The tree is then slightly raised at the center by a lever or wedge, so as to open the saw-cut a little; a piece of string or cord is placed all round the edge of the saw-cut, and on lowering the tree again, the cut closes upon the string, which thus forms a water-tight joint in a simple and effectual manner. An auger hole is then bored obliquely into the saw-cut from the outside, into which is driven a hollow, wooden plug, to which a flexible tube is fitted. The tube communicates with a raised cistern, placed at a height of from 30 to 40 feet above the timbers that are to be prepared, and containing a solution of sulphate of copper. When the preparations have been completed, the liquid flows through the tube into the saw-cut in the tree, and forces itself along the log in both directions, driving the sap out at each end. As soon as the liquid has reached the ends of the log, the process is finished and the log is ready for use.

If the timber is required of the entire original length, the cross saw-cut at the center cannot be made, and instead thereof, a cap, consisting of a piece of board, ¾ inch or 1 inch thick, is fixed on the end of the log by screws or clamps, and made, by means of a piece of string or cord, to enclose a space at the end of the tree. As the direction of the grain in the board forming the cap is transverse to that of the tree, the liquid cannot pass through the cap, and the injection proceeds from one end of the log to the other.

In order to ascertain when the process has been continued for a sufficient length of time, so that the sap has been all expelled and replaced by the solution of sulphate of copper, a piece of prussiate of potash is rubbed on the end of the timber while in the damp state, and if the solution has reached the end of the log a deep reddish brown stain is produced, showing that the timber is thoroughly impregnated with sulphate of copper.

The sap expelled from the timber in the process of impregnation, contains at most only 1-1000th part of organic matter in solution, and accordingly no inconvenience is experienced in employing it as a solvent for the sulphate of copper. It is, indeed, preferable to many kinds of spring water, particularly those containing lime, which decompose a considerable proportion of sulphate of copper. Troughs are therefore laid under the ends of the logs to catch the sap and the waste solution, which are conducted to a reservoir to be pumped up to the cistern and mixed with sulphate of copper to the proper strength.

The solution that has been found most effectual for preserving the timber is composed of 1 part by weight of sulphate of copper, and 100 parts by weight of water. The strength of the mixture is ascertained by a hydrometer, having a properly graduated scale. The specific gravity of water at 60° Fahr. being 1000, if 1 per cent. of sulphate of copper is added, the specific gravity of the mixture will be 1006, nearly.

The sooner the trees are prepared after being felled, the better, and it is therefore advisable to prepare them as near as possible to the place where they are felled. Trees felled at any time between November and May, may be prepared in May; but those cut down in May, or at any time from May to the end of November, should be prepared within three weeks from the time of being felled.

In the course of the operations carried out in the practical application of this process, the following facts have been ascertained:

All kinds of wood do not absorb equally and the absorption of the liquid is more rapid in the sappy parts than in those nearer the heart of the tree.

The quantity of the solution forced into the timber is equal in cubic measure to at least one-half of the cubic dimensions of the timber. When a solution containing about 2½ lbs. of sulphate of copper in every 22 gallons, has been forced through a log, it appers, after allowing for the sulphate carried off by the sap, that every 35 cubic feet of wood have retained from 11 lbs. to 13 lbs. of sulphate of copper.

For a log about 9 feet long, the process of impregnation occupies two days, when the timber is newly felled and the solution is supplied by a head of about 3½ feet. If the wood has been felled three months, three days are required; and if four months, four days are necessary to complete the impregnation.

Of different kinds of trees, those which possess most moisture are most easily penetrated by the solution; and of the same kind, those which have grown in the dampest soils. Hence the least valuable and cheapest kinds of timber are precisely those which give the best results when impregnated with the sulphate of copper.—*Plough, Loom and Anvil.*

Hydraulic Cement---Its Uses.

This valuable article is beginning to be more extensively known and used than formerly, and we are satisfied that it requires only to be universally known to be universally applied to uses hitherto unthonght of, even by our most practical builders. A correspondent observes:

"I have been manufacturing and using hydrau'ic cement for a number of years—consequently I feel as though I am capable of throwing a little light on the subject. It is in general use for building cisterns, cellar bottoms, cellar walls, a cheap and durable pipe for conveying water, mill flumes, mill dams, houses, &c. Cement makes a much stronger mortar than quick lime, and will set as hard as a rock in the water. For plastering the exterior of buildings in imitation of stone, and for plastering the inside of houses, it makes a very hard, smooth

surface, capable of being washed with soap and water without injury, and presenting a smooth unabsorbing basis for paint.

Cisterns are variously constructed. The best way, however, in my opinion, is to excavate a hole in the ground in the shape of an egg, with the little end down, plastering on the ground, building an arch with brick to form the covering. Cisterns are more frequently covered with large stone or plank, which will answer a very good purpose. Five bushels or 300 pounds, which would be in a barrel of cement, is sufficient for a cistern containing 30 barrels of water.

Cellar Bottoms.—Take spalls of stone or coarse gravel and cover your cellar bottoms to the depth of four or five inches; make your mortar into a thin grout, and smooth the top of the same with a trowel. This will make an excellent bottom, and is an effectual remedy against rats.

Pipe.—Excavate a ditch of sufficient depth, and bed down the mortar made of cement; then take a leather bag four feet long, of the size you require, filled with sand, which you have prepared for the purpose. Lay down the leather bag on the mortar, and build over the same with mortar. In a short time it will set sufficiently, so that you can draw the bag forward, and build over as before. This pipe will soon bear a great pressure of water, and is a cheap and durable pipe.

Mill Dam.—Build a wall 1½ or 2 feet in thickness, taking spalls of stone or clear gravel; make your mortar into this grout, and mix it well with your gravel. It will be necessary to have a frame of one plank on each side to hold the grout and gravel, until it is set; then make a slope wall on each side, or any other plan to form strength to hold the weight of the water.

Houses have been built on this plan which nothing can surpass for cheapness, durability and beauty. For plastering dairies and forming water courses for milk pans, it is admirably adapted.

Directions for Use.—As a mortar, two parts of coarse, clean, sharp sand, to one part of cement—mix together dry, and temper with water; mix in small quantities, as it hardens quickly. If loamy sand is used, a greater portion of cement is required. River or creek-washed sand is the best. When used for plastering cisterns, by plastering on the ground, 3 coats of one-half inch thickness should be put on, one coat each day, until completed—scoring the first two and using more cement in the last coat, which should be well smoothed. Daily sprinkling with water for ten or twelve days will strengthen the plastering of cisterns; and this should be done before the cistern is filled with water. Care should be taken to procure fresh cement; that which is old is nearly worthless."—*Tennessee Farmer and Mechanic.*

Bloody Murrain.

I have lately seen it stated in the papers that this fatal disease had appeared among western cattle, and another writer pronounces the disease incurable. In the absence of proper books setting forth the western diseases of cattle, I have thought it a public service to say something to the readers of the *Farmer* on this subject.

Bloody Murrain—Causes.—Many persons think this disease infectious; no doubt the bloody discharges in a herd of cattle intensify the predisposing causes, but nothing more; and for that reason the diseased animal should at once be removed from its fellows. I believe the disease to be caused by malaria. It generally appears in excessively *wet* pastures, and where cattle have been fed a long time in a short space of surface, fouling the soil.

Symptoms.—Yellowish water infused in the ordinary white coats of the eyeballs, and exhibited in the urine, drooping, and great inactivity, loss of appetite, and especially will the diseased animal stand apart, and become *solitary* for some days before the disease fatally exhibits itself; then follow bloody discharges from the bowels, and sometimes the urinary vessels, as death approaches.

Preventives.—Keep always, in tight troughs, salt sprinkled on ashes, accessible to the cattle. This is almost a *sure preventive;* occasionally, however, as cattle get very fat, remove them to new standing places.

Cure.—As soon as an animal shows any of the above symptoms, remove him at once from the herd; mix common slacked lime as if for whitewash, and give a full grown bullock from three to four pints of it once; if this does not cure, the case is hopeless, so far as my experience goes. The lime acts not as a powerful purgative, but in some other unknown way, as other purgatives fail to have any efficient result. I need hardly say that the sooner the drench is given after the disease shows itself, the better—as after the bloody discharge from bowels begins, it is rarely curable.—*Ohio Farmer.*

C. M. Clay.

Manuring on the Surface.

Surface manuring is no new idea; yet if our memory serves us, the practice is almost universally ignored by agricultural writers of the present day, as a method of manuring. It is acknowledged as a very good thing to preserve favorite plants or newly set out trees from the effect of drought, but very little beyond this. "Those who imagine," says the editor of the *Working Farmer*, "they find good results from spreading of manure on the surface, and leaving it for days, weeks or months before it is plowed under, mistake the action of the litter or longer portions of the manure on the soil." We so far differ from this and kindred opinions on the subject, that we think manuring on the surface, for ninety-nine farmers in a hundred the best general method of application. We except all cases where the drill application of compost is found desirable, and garden and lot culture. Nor do we maintain that there is not a more perfect method of preserving and preparing all the elements of the manure heap, by its careful husbandry under sheds, an occasional treatment with diluted sulphuric acid, or some other "fixer," a cistern to catch the drain-

ings, and a pump to pump them back upon the heap, and patience and perseverance and constant watchfulness. A more perfect method still is that of Mr. Mechi, who applies his manure only in a liquid state, and for this purpose has his farm traversed with iron pipes, to convey the fluid to the different fields. He says it pays in England, and it may be so, though his neighbors doubt it very much. But on a Virginia farm, we think sensible men would account the Sheriff of London stark mad. We maintain that this mode of manuring (viz: on the surface) is in itself so little inferior to the most perfect methods, that taking into consideration the circumstances of our farming population, the extent of surface and high price of labor, the attention and time and management that the mass of farmers can give to this branch of their operations, it is for them the most economical and best. *It will pay better.*

We ask now the reader's attention to the ammonia theory. That *ammonia* is the element of greatest value in stable manures, we do not question. That it is very volatile, flies off and escapes by exposure to the atmosphere, everybody knows. Upon these principles is based the recommendation to plow under immediately, manures which yield ammonia, that the earth may absorb and preserve it. Now let it be distinctly borne in mind, that *fresh* manure of any sort does not contain this volatile ammonia, but only *nitrogen*, which is not volatile, out of which the ammonia is formed; and that ammonia is generated only as the nitrogen putrifies in the rotting manures. If the manure accumulates in the stable, the warmth and moisture of the daily additions soon brings on active fermentation, and the pungent ammonia which assails us, is the result of the putrefaction thus caused. Until this process of rottening commences, ammonia is not formed, and the manure not liable to waste, and it ceases to be generated when the rotting is checked.—Now when we are ready to move our manure heaps in the spring, we find them usually rotting to some extent. Let us follow, and observe the whole process. It is taken up first, forkful by forkful, and pitched into the cart, the ammonia, of course all the time seeking its freedom; it is hauled, reeking and smoking a long distance perhaps, to the field; now it is dropped into small heaps; where it remains a week or so, until you are ready to plow the land. If you are ready, or when you are ready, these heaps are carefully spread out on the ground, the more perfectly the better, and then plowed under, not immediately, even under the most careful management, but as soon as it can be done—with a delay, ordinarily, of an average of some hours. Now, with all this necessary opening and forking, tossing and spreading, our impression is, that the free ammonia is very much like the Frenchman's flea, which, when he put his finger upon it, wasn't there; the point of time when we are ready to lay hold of it, is just when we may as well save ourselves the tronble: it is not there. But let it be borne in mind, that the ammonia we have been dealing with, is that only which was generated in the rotting heap, before its removal. When the heap was opened to the air, the process of rotting ceased, and ammonia was no longer formed. Supposing, then, this free ammonia is pretty well gone, at any rate, we have the remainder of the manure, with its unchanged nitrogen, (not ammonia) to deal with. Plow this under to the depth of eight inches, and for want of the proper temperature to cause its putrefaction, it may remain unchanged and unavailable, until another plowing shall bring it up again to the influence of heat and moisture, which will disengage the ammonia. It is a frequent experience, that we plow under deeply for a spring crop, fresh stable manure, and receive no benefit from it whatever, until it is brought up again out of the surface, and the wheat crop following reaps the advantage.

But suppose, instead of making a week or two weeks' heavy labor of hauling out manure in the spring, when the teams are at best not strong, and there is a press of hard work on hand, you get rid of this necessity of hauling out and plowing under simultaneously; and hauling at your convenience, you throw the manure upon the surface of the grass field, what is the result? At the worst, as we have shown above, there is equal loss of the *free ammonia*, when the manure is plowed under. In both cases, that is about all gone, before it can be with certainty taken possession of, by any process. The mass remaining on the surface, however, the work of putrefaction, which made the free ammonia, and which was stopped by the opening and exposure of the heaps, is now recommenced and very slowly carried on by the warmth and moisture at the surface. The ammonia thus formed is absorbed by the litter above it, and washed down by every shower into contact, and combines chemically with the humus at the surface, or with the soil itself. But bear in mind, that when these frequent removals are made, we never find the heaps in such a state of putrefaction as when we postpone to some one allotted time, and therefore never have so much free ammonia to deal with. A very large proportion of the manure never begins to rot before it is removed. By this plan, moreover, we take favorable opportunities for hauling, and may carry out much of the manure in damp or moderately rainy weather, when the showers will wash the ready formed ammonia immediately into the soil.

We have thus undertaken to show, that the practice of manuring on the surface is not inconsistent with admitted chemical principles, when properly applied; and we submit the explanation to the judgement of practical men, familiar with the process of farm management.

[*American Farmer.*

Deafness.—Take three drops of a sheep's gall, warm, and drop it into the ear on going to bed. The ear must be thoroughly syringed with warm soap and water in the morning. The gall must be applied for 3 successive nights. It is only efficacious when the deafness is produced by cold. The most convenient way of warming the gall is by holding it in a silver spoon over the flame of a candle. The above remedy has been frequently tried with success.

The Different Systems of Drainage.

We are sometimes told that farmers ought to leave their habits and prejudices at home, and come to the discussion of an agricultural subject, exactly as a lobster would if divested of its shell. Let us see how much a meeting conducted on such terms would be worth. The cultivation of a dark, strong, homogeneous clay, affected entirely by water on its way from the heavens downwards to the sea, and where the principle has been to remove this as quickly as could be effected by open parallel furrows on the surface, a few feet distance only apart, and intersected by parallel open drains, in a cross direction, some 20 or 30 yards asunder. Such a system with one man is the only drainage that he requires to effect his object.

The cultivator from another district (probably the oolitic), where the soil is a dark tenacious clay at top, and an open, porous, or absorbent soil below, is satisfied with any depth of drain, provided it is deep enough to penetrate the retentive soil lying above, so as to give the water free admission to the porous subsoil below.—Another, who lives in a district of greatly undulating surface—with a porous subsoil on extensive or dislocated portions, and intersected at all angles with beds of tenacious clay lying at various depths and thickness—the porous portion supplied and overcharged with water, endeavoring by its own gravity, to force its way through it from the highest to the lowest level, and constantly endeavoring to escape upwards from its indisposition to find a level, or rising to the surface by capillary attraction whenever the disintegrated particles rest on quicksands below, already highly charged with water—the resident in such a district says that nothing but deep draining will answer, the distance apart being only secondary; but nothing less than four feet drains, and in many instances even twice that depth, will suffice to rid the subsoil of its injurious occupant.

Again, we have the farmer from a country where one uniform flat surface prevails, and regularity of subsoil, are each of themselves equally remarkable features; and he requires drains as near to each other, in point of distance, as can be effected—6 yards apart at most, and from 26 to 36 inches in depth, running parallel to each other throughout the whole field. This mode he has found to answer his purpose, and he has no doubt will equally answer for every one else.

And thus we might multiply instances without end. But as a few invariable and unerring principles are connected with the subject, we will endeavor to record them.

1st. The specific gravity of water is 817 times heavier than air.

2d. By its gravity it always has a disposition to descend; but the instant it meets with resistance it exerts its force equally in every other direction.

3d. That force is invariably exerted until it has found a level, and it can then only be said to be at rest.

4th. That whenever this equilibrium is attained, it remains in that state (stagnant) until disturbed.

5th. That in perforating the soil with a drain, that portion nearest the drain is first set in motion, and this is followed in successive rotation by the next nearest portion, and so on to the extent of its action.

6th. That its action ceases wherever the compactness of the soil is sufficient to overcome the gravity of the water held in it by suspension.

7th. That water not only descends by its specific gravity; but ascends by capillary action; wherever the lower portion of the soil rests in water, the complete disintegration of its particles facilitates that object.

8th. That water passing from a higher to a lower level through the soil, always has a tendency to rise to the surface, and would invariably do so unless intercepted by open or underground drains—hence the origin of springs.

9th. Water, on reaching the surface of the earth, would continue to descend in the soil until resisted, which it invariably would be whenever a porous soil was preceded by a retentive one.

10th. That water in its purest state, as rain water, is slightly charged with ammonia; but to an inconsiderable extent, excepting after long seasons of drought.

11th. That water becoming stagnant in a soil, becomes deleterious to plants growing upon the surface, the mineral deposits, especially iron, after entering into its composition, rising toward the surface.

12th. That water passing through a hollow pipe meets with resistance produced by friction. A pipe filled at one end cannot be made to run full at the other.

13th. That water in a drain upon meeting with resistance, will fill it continuously upwards till the weight of the column of water overcomes such resistance by the pipes giving way at the lowest point.

14th. That the velocity with which drains discharge themselves depends upon their inclination and the permeability of the soil.

15th. The specific gravity of water being greater than that of air, it invariably displaces the latter in the soil; but upon its removal, air again occupies the space originally held by it, and thus a continuous action is produced in the soil.

16th. Water when frozen expands, and thus, by its power, the hardest substances become broken up, or have their external surfaces abraded by its action.

The foregoing is merely a statement of those principles which will ever be coming into operation during the processes of draining, and by observing which the operator can seldom err. Of all scientific practices, that of draining is of itself the simplest of application; the merely perforating the subsoil with a hollow drain, at a sufficient depth, must necessarily draw off the accumulation of water held in suspension in the adjacent soil. If this be tenacious, from thirty to thirty-six inches, in most cases, will be sufficient, keeping in mind that, although a greater depth might be desirable, the cost of the drainage ought always to govern the proceeding. On the contrary, if the subsoil is po-

rons and charged with water, flowing from a higher level, then the drains must be sufficiently deep to carry off the water, that the soil near the surface must not be rendered wet by capillary action, bearing in mind that the more complete and minute the disintegration of the soil, the greater the disposition of the water from below to ascend towards the surface. In some cases drains from forty to fifty inches will be requisite.

In soils alternating in quick succession of beds of gravel, sand and clay, a few deep drains judiciously placed will generally effect the drainage of large portions of a field, remembering that the drain should be cut so as to intercept the water passing in the gravel or sand before it reaches the clay, and in a parallel direction with the edge of the deposit. In some cases the merely perforating the clay in one continuous line from one gravel bed to another to the lowest level will also equally well effect the object. The drains must invariably be deep enough to release the gravel altogether, and a previous knowledge of their extent and situation ought to be ascertained. No other description of draining is so difficult to perform as this, or when done, repays so largely for the operation. We might go on multiplying precedents *ad infinitum*,—but it is not our intention to raise discussion, so much as to point out general principles to obviate it.

Water is the source of sustentation of the animal and vegetable kingdoms. The agriculturist, more especially than all others, becomes subjected to its influence. The smallest quantity, either in excess or deficiency, is to him severe injury or proportionate gain. If, therefore, we have cleared away any of the impediments by which its withdrawal can be effected, we have not toiled entirely in vain, even if we only succeed in obtaining attention.—*London Farmer's Magazine.*

Good Plan of Shoeing Horses.

H. Hallen, V. S. of the Inniskelling Dragoons, having for upwards of thirty years taken great interest in the subject of shoeing horses, offers the following remarks, which appear in the Veterinarian:

To prepare the fore foot for a shoe, a level ground surface is made by a drawing knife and rasp, taking off the usual quantity of horn which would be worn away at the ground surface of the crust. At the toe there is a concavity made for the reception of the foot surface of the shoe at this part, caused by the turning up of the toe of the shoe. The heels are not what are generally termed *opened* by the drawing knife, neither is there a particle of the outside of the crust, sole, or frog removed.

The form of the shoe.—This is made flat on the foot surface, and concave on the ground surface throughout, excepting at the toe, which part is turned up so as to have the form (inferiorly) of a shoe worn some time. No clip at the toe or any part of the shoe. The nail holes are countersunk: five are used, three on the outside and two on the inside, placed so as to retain the shoe securely on the foot, and, at the same time, to interfere as little as possible with the elascity of the horn.

Fitting the shoe to the foot.—Care is requisite to have an equal bearing throughout on the ground surface of the crust, and the shoe not to project in the slightest degree (outwards) in any part; the heels of the shoe to terminate evenly with the foot.—*Ohio Cultivator.*

Agriculture.

One reason why agriculture makes such slow progress is, that experiments made in it are necessarily few, one only being generally practicable in a year, whereas those in other arts, mechanics for example, may be repeated daily, or even sometimes hourly. In this respect, it resembles government, and consequently both the art of agriculture and of government are still, after so many centuries, very far from having attained perfection. Government indeed possesses yet fewer opportunities of improvement than agriculture, not only because its experiments can be repeated but once usually in an age, but also because a great variety of interests are opposed to the trial at any time of a fair experiment by men who expect to profit by a bad government, and therefore employ their influence against the introduction of a better.

No one farmer can expect, therefore, to make trial himself of many new processes of culture. The expense as well as delay will always oppose impediments and discouragements. Each, however, must severally do something for the advancement of his art; this will be prompted by self-interest to a certain extent. For the rest, cultivators must watch the procedures of others, and adopt what they shall find to be improvements of old ways.

Cultivators, however, are a little too much addicted to repeat their own footsteps, or follow in those of their fathers or neighbors, and are backward in learning and practicing on the enlightened modes to which they have been strangers. They rarely think of imitating the customs of foreign farmers, as described by travelers and writers on their art, and remain in ignorance of successful experimental farming even in their own State. Agricultural works, if read, would diffuse a large amount of profitable knowledge. But they must be read with discrimination, for it requires considerable intelligence to separate the superficial, sometimes perhaps interested speculations found in books and periodicals, from the sound and thorough and practical instructions, they undoubtedly do often contain.

But if farmers would personally *visit and inquire* into the yearly practice and success or failure of their intelligent co-laborers not very remote from them, they would obtain a large fund of information, which would be exceedingly valuable. When they hear, for instance, of a successful culture of onions for several seasons in succession, let them call and ascertain the manner of producing such a result.—We saw a case of this kind on the northern boundry of Madison, where Mr. Campfield had

by estimation, seven or eight hundred bushels of onions on about an acre of ground, on which large crops had been grown annually for eleven years previous. They were of the red variety, not intended for the New York market, which prefers the silver skin or white, but were sold in the neighborhood and at Paterson for a dollar a bushel. In the same vicinity, though lying in the township of Hanover, are two fields belonging to Mr. Charles Hoppin, one of water, the other of muskmelons, the former containing two thousand large ones, or thereabouts, the latter five thousand. It would do no harm for other farmers to inquire how some farmers do these things.—*Newark Daily Advertiser.*

The Morality of Dietetics.

The pleasure of the appetite are legitimate pleasures. God did not implant the sense of Taste in man to ruin the beautiful structure of his body, or to impair the noble faculties of his soul. But like all the other appetites the appetite for food may be abused. If its proper conditions be violated the loss of power, premature decay, and untimely death, are inevitble. The life of the ofiender is deprived of its own enjoyment and of its power of being useful to others

Observation and seience have brought to light many of the conditions of health and longevity, and an observance of these conditions is one of the first steps towards redeeming the raee from its present degradation.

There is no more prolific,—indeed, there is no *such* prolific cause of bad morals as abuses of diet—not merely by excessive drinking of injurious beverages, but by excessive eating, and by eating unhealthful food. Compounds, like wedding-eake, sweet plum-puddings, and rich turtle soup, are masses of indigestible material, which should never find their way to any christian table. It looks ominous to see a bridal party celebrating nuptials by taking poison. Although some persons may seem to eat these criminal preparations with present impunity, yet a book of reckoning is kept for the offences of the stomach, as well as for those of the heart, and this is one of the deeds done in the body, for which the doer will be ealled to aceount.

If asked why I pronounce these and similar dishes *unchristian*, I answer, that health is one of the indispensable conditions of the highest morality and beneficence. Temper, it has been said, lies in the stomach, whieh is physically if not metaphysically, true. Every intelligent dyspeptie knows that he is a worse man when suffering under a paroxysm of his malady, than in one of his lucid intervals, if we may so call them. Even the lucid intervals of the confirmed dyspeptic are negatively good and useful rather than positively so. Why is not dyspepsia disgraceful, like *delirium tremens?* When it comes to be so considered, as it assuredly will be when the gospel of the body is fully understood, it will be banished from good society.—It is a good omen, that practical physiologists, even now, begin to feel ashamed of ill health, and feel bound to apologize for it.—*Health and Economy in Cooking.*

A Mixture for Bad Cold and Cough.—Solution of acetate of ammonia two ounces, ipecacuanha wine two drachms, antimony wine two drachms solution of muriate of morphine half a drachm, treacle four drachms, water add eight ounces. Take two tablespoonfuls three times a day.

The Death of my Good Old Hen.

At last the speckled hen has gone,
That hen of hens the best,
She died without a sigh or groan
While in her downy nest.

Through Summer's heat and Winter's snow
For ten long years she lay—
At noon and eve she laid an egg,
But none the Sabbath day.

She had a nest behind the door
All neatly lined with hay,
Her back was brown and sprinkled o'er
With spots inclined to grey.

Though fourteen years of age almost,
She still looked young and hale,
And like Job's turkey she could boast
One feather in her tail.

The neighbor's fowls did all agree
She was a good old soul;
Sometimes she roosted in a tree
And sometimes on a pole.

Whene'er the rain came pelting down
And thunder dreadful roar,
She hid herself in Johnny's hat
Until the storm was o'er.

She lived a plain and honest life,
No higher wished to rise—
She flew at neighbor Sampson's wife
And scratched out both her eyes.

She never denied the barn yard beau
His face to look upon,
And loved but one whose long shrill crow
Was heard at early dawn;

An aged cock who oft had told
His descent with a sigh
From one that crow'd when he of old
His master did deny.

When poor old speckled closed her eye,
He jumped the fence and cried;
He bid the poultry all good bye
And then laid down and died.

Kind reader now we'll drop a tear
To Johnny's speckled hen;
It is too true we ne'er shall look
Upon her like again.

The Farmer and Planter.

PENDLETON, S. C.

Vol. IX, No. 6, : : : : : June, 1858.

Judge Evans.

Since our last, a great and *good* man of our State has fallen. The sad intelligence of the death of Judge Evans, to *us*, on whom his kind attentions had been so frequently and liberally bestowed, is truly distressing; for we loved the man, not only for his friendship and kindness to us, but for his many virtues and sterling qualities of heart. We have known Judge Evans since his first attendance on our Western Circuit, and have only known to respect, love and honor him. But he is gone, and we most sincerely condole, not only with his near and dear friends and relatives, but with our whole State, on this sad and melancholy bereavement.

To Delinquent Subscribers.

We greatly regret the necessity of having again to call on our delinquent subscribers, and to request—*beg* if nothing else will move them—to pay up their arrearages. We have a great many accounts due us—ranging from one to nine dollars, by honest men, as we believe, who *intend* paying at some convenient time; and many more, by dishonest men, who do not intend paying either in this world or the world to come, unless old Satan whips it out of them. We much dislike to be compelled to publish a list of defaulting *honest* subscribers, with the amount owing by each, even for their own information, but when one leaves for "parts unknown," or refuses to take his paper from the office without *first paying up arrearages*, we feel no doubts of the propriety of giving his name to the world as a *Cain* mark, to prevent him from swindling other publishers. This number completes half of our ninth volume, and *we now give notice*, that after the ninth number is issued, we shall send out the accounts of all subscribers who do not pay before that time—unpleasant though it may be.

Convention of Agricultural Editors.

Well, why not? Other editors hold their Conventions, talk over "matters and things in general," eat good suppers, and drink good wines, without accomplishing any other objects of great importance; and why not Agricultural Editors do the same? Although we think it not very probable that we shall realize the pleasure of attending such Convention, yet we approve of it with all our heart.

We have received from Orange Judd, Esq., of the *American Agriculturist*, two Circulars on the subject. The first, suggesting the propriety of a Convention;" and second, proposing to "defer calling a formal Convention," and instead, to invite Agricultural and Horticultural Editors to attend the next meeting of the *American Pomological Society*, and then and there, fix on a time and place for holding the Convention. Why not meet in Washington City, instead of New York or Rochester?

Refused Papers.

Will at least *one* of our subscribers at each Post Office do us the favor to request his Post Master when he returns a paper, not to write on the margin of it, so as to deface and render it useless to us? We would prefer he would commit it to the flames, especially when he attempts to make himself witty on the occasion, such as the following, which we recently received from a source that we little expected. We give it just as written:

"You will please Keep your Paper Dont Wast any More to send to Newberry for this Man as he is Dead you must Exspect for a Dead Man to Read a paper Newberry S. C. May 11 1858"

All this stuff written with *ink* on the margin of the paper, and it is not the first instance of the kind, some of which we have heretofore noticed. Now, instead of writing us a letter, which is the duty of a Post Master, or writing on the *inside* of the envelope that the paper is refused and at what office, a foolish display of wit is attempted on the paper itself, or on the *outside* of the envelope and the post office but very rarely given. We would remark here, that the Post Master at Newberry did write us, informing us that one subscriber was dead, and another refused to take his paper from the office, which was his duty, and altogether sufficient. As to expecting a dead man to read our paper, if we ever heard before that Mr. Kilgore, the man referred to, was dead, we have now no recollection of it.

We ask the above favor of our subscribers for the reason that but few Post Masters take our paper, and consequently would not notice a request made *directly* to them. We have, with but few exceptions, found Post Masters polite and attentive to our requests made to them by letter, and for which we are under many obligations. But it is very unpleasant to have to do business with a crabid, spitefnl and unaccommodating public officer.

Answers to Correspondents.

A subscriber writes us from *Robertsville*, S. C., under date May 1st, as follows:

"Is there any remedy for ground moles, which I find very destructive to corn, potatoes and pinders, causing very broken stands? My

lands are very light—in cultivation some five years never having been rested.

"We had a considerable frost on the 28th ult, which, though not *killing*, caused a change in the appearance of vegetation. Recent showers of rain induce the hope of getting good and early stands of cotton. Hoping that it may be realized, and that your paper may continue to increase, I am," &c.

Remarks.—As our friend may not have our first volume. we make two short extracts from it, which answers his enquiry about moles. We think it probable that pills made from dough or bread crumbs, with a very small portion of strychnine in each, and dropped through a small hole into their tracks, would do the work for them more effectually than the remedies recommended below.

To Destroy Moles.—Messrs. Editors:—I feel so highly pleased with your paper, that I flatter myself you have no objection to hear from a small planter once in a while. But feeling my incapability of writing anything worthy the notice of the public eye, I will be short. Mr. R., in your July No., wished to know what would "eradicate or destroy moles," those very destructive vermin on all small plants in light land. If you think worth while, you may say to him, that glass pounded very vine and mixed in pills of dough, or the crumb of bread, inserted in their trail will kill them, and the ground mouse which you suspect to be the thief that steals, when the mole opens the door with no bad design. In my opinion the mole is just as guilty as the mouse and a little more so. All kinds of poison in pills fail to have the effect, on account of the scent, in regard to which they are very sensitive, and will not take it, so prepared, often. The glass has no scent, and will grind through their entrails, mixed in cooked hominy or bread. It will kill rats in the smoke-house and barn. It will also kill dogs.

A Subscriber.

Moles and Rats.—Messrs. Editors:—I have concluded to drop you a line to put your enquiring correspondent, R., on a plan to get rid of moles, and to keep rats out of his oats. It may also, possibly, be of some use to others. If the *Palma Christi* seed be put into the mole roads in the winter, or spring, when these pests can find nothing else to subsist on, they will eat it, and it will kill them. I have been troubled very much with moles myself, and in this way have got rid of them. If R. will plant the seed about his potato patch and cultivate the plant, he will have no moles.

To keep rats out of oats, is very easy; if, when you put your oats in the house, you throw down two layers of oats, then sprinkle ashes over them, then lay on two more layers and put on ashes again, &c., using about one bushel of ashes to every thirty dozen oats.

Spartanburg.

Glenn Springs, Sept. 25th, 1850.

Extracts and Replies.

A highly respectable and much esteemed subscriber, one who has done *more* for the Farmer and Planter than promptly paying in *his own* subscription, writes us from Georgetown, S. C., as follows:

Georgetown, S. C., May 10th, 1858.

"Dear Sir:—Enclosed I send $2 to meet my subscription for the Farmer and Planter.—I really am donbtful whether or not I have forwarded payment for the present year, and to be certain, send $2, which will include the next year.

I sincerely trust your paper will not be discontinued. Before you *determine* upon its dissolution, please call for the names of those of your subscribers who may be wiling to pay for five years in advance. I know that some of your subscribers in this neighborhood have been tardy in consequence of the difficulty of obtaining small bills, and I feel assured that every man on your list from this district would cheerfully pay $5 in advance, in preference to reading an obituary notice of the Farmer and Planter. Yours, very respectfully,

J. R. S."

"P. S. Enclosed I also send an ear of a particular kind of grass, which I am inclined to think very valuable. It was discovered a year ago growing in a field of rye, and so abundant was the crop that several quarts of the seed were preserved, and replanted in ordinary poor sandy land to test its merits. One-eighth of an acre is now maturing. It was planted in October, and pastured upon until March; and I am inclined to think the crop will be quite as productive as our best oats. As I am not familiar with the foreign grasses, I will esteem it a favor if you will name and locate it for me.

J. R. S."

Remarks.—In replying to a letter received from Col. Gage, extracted from for this number, we have already made some remarks on the subject of continuing the publication of our paper after the close of the current volume, and with our *present* patronage, we may again say, *we cannot do so with our present income without serious loss of time and money;* and we know our subscribers are too generous when know this fact, to ask or expect us to do so. With greatful acknowledgments to our friend for his suggestion, we cannot agree to call on our subscribers to pay in advance, but instead, if each will send us *six* subscribers for the *five* dollars, it will be much more agreeable to us. Life is uncertain, and we may not live to publish five more volumes, and we should greatly dislike to die indebted to our most liberal supporters No, my friends, that will not do, but make us up only 1000 additional subscribers to our present list, and we will continue to serve you with pleasure.

The ear of grass sent, is a stranger to us in culture; we think we have seen it growing on low banks of streams in our own district; but as a Botanist, we are not sufficiently qualified to classify it. On first sight, we suspected it to be a cheat or chess, but a comparison satisfied us at once that we were mistaken. We are not certain, however, that it does not belong to that family, probably *Bromus mollis*, the grass known by us as cheat, being *Bromus secalinus*, called in England, Darnel. We doubt not, if a plant is sent to Dr. BACHMAN, that he can give its habitat and name.

Our friend will excuse us in making public his private letter, as we could not understandingly answer it without so doing.

DeBow's Review.

Some time since a man calling himself Prof. G. H. STUECKRATH, an Assistant Editor and Agent for the above work, visited our Village, and through our assistance, obtained some two or three subscribers; also took us down as an exchange, with a promise to send the April number to all. but since then we have heard nothing of the Professor, nor have any of us received the promised number of the Review. Wonder if we are sold.

The "Southern Homestead."

What! another Southern Homestead? We have recently received from Nashville, Tenn., "The Southern Homestead," and placed on our exchange list; and now from a prospectus since received, which we copy below, it seems we are to have another at Atlanta, Ga. Well, the more the merrier, but a rose under any other name would smell just as sweet. Mr. HOWARD is, we believe, the writer of the essay on grasses, we are now republishing from the "Southern Cultivator." We knew him some years since in Cass co., Ga., but he has never honored us with his patronage.

The Southern Homestead.

The undersigned proposes to publish at Atlanta Ga., a monthly journal, devoted to agriculture and such other kindred topics as may be of interest to Southern planters, farmers and their families.

An able domestic and foreign correspondence will be secured. By this correspondence, and the diligent and personal attention of the Editor, it is hoped that the "Southern Homestead" may become a pleasant and instructive monthly visitor to the homes of the South. No effort will be spared to make it quite equal to any similar publication in any part of this country.

As soon as one thousand subscribers are obtained, the first number of the "Southern Homestead" will be issued.

The typographical execution of the paper shall be of the first character. It will contain thirty-two pages of reading matter. The terms are One Dollar per annum, payable on the receipt of the first number. Advertisements will be inserted at the usual rates.

C. W. HOWARD.

Kingston, Georgia, April, 1858.

The Weather, &c., &c.

We copy the following from a letter written us on the 4th of May, by Col. R. J. GAGE, of Union District:

MY DEAR MAJOR:—We have had a cold snap of it, really, and "early birds" have been been caught this time from home.

April 23d. W. S. W., M'y 62°, wind *gulf* strong and damp, sunshine; warm—showers from W. and N. W. P. M.—Night *fan clouds*. April 24th. W. N. W., M'y 40°. Frost pretty sharp, killing tender vegetable, and cotton in low places. Night fan clouds again. April 25th. W. N. W.; cloudy and cool, with *snowissh* feeling, M'y 48, night wind veered to N. E., and commenced raining. April 26th., W. N. E., drizzling rain and freezing as it falls, most of it a sleet.—M'y, ranging from 38 to 40 all day—4 P. M., cleared off cool. April 27th. M'y 34°, in some places, 32° and ice—big frost—wind North West all day, and cold. April 28th., W. N. W.—frost—M'y 34° P. M., wind S. W., but cold and icy—must have had ice far S. W. of us. There, sir, is a scrap from my log book, but how does it tally with your latitude?

Many of our planters have plowed up and planted over their cotton. I do not think the wheat is much hurt, nor is the fruit injured.—You may look out for many cold rains this spring, in my opinion. The immense floods in the West will supply water enough to keep our SouthWest winds charged with moisture, and the cold Northeasters will condense them for us—one is always surely nearly to follow the other.

I have discovered another typographical error in the Premium List, in the corn premium, for the best 20 acres of restored upland, &c., $20—should read $30. The next premium is for 10 acres, $20. I have pushed the lists into every quarter, and find it generally gives satisfaction; but I have no idea it will please every body.

As to "equalizing premiums in proportion to cost and importance of articles," who is to be the judge? The Cashmere man, the Devon man, the Brahmin man, the corn man, the cotton man, the hog man, horse man and sheep man, each have his idea of importance, &c. The object of the Society, I take it, is to encourage the departments most neglected that would improve our condition.

REMARKS.—The notes above very nearly agree

with our own. In addition to rain and sleet on the 26th, we had a brisk fall of snow in all the fore part of the day. We did not observe the range of the thermometer, as did our friend, ours being not very correct in its indications. Corn and cotton were bitten down, and most of the fruit destroyed. Our own orchard, with some others in our neighborhood, will produce a fair crop. Wheat was injured on low light lands, but not much on uplands. We also had light frosts on the mornings of the 12th and 13th of May—not sufficient to do any damage. The remarks on "Cold rains" have, with us, up to the time of writing, been fully verified, and no doubt from the causes suggested. The frosts last above mentioned, were preceded by a cold Southwest rain.

The Executive Committee need not expect to please everybody in making out a Premium List, nor need they suppose that every one who makes a suggestion is *dis*pleased. Many valuable articles are exhibited, not with the expectation of getting a premium, but rather as an *advertisement*, and the exhibitor may, in many instances, well afford to pay double the entrance price to have the privilege allowed him.

On the subject of the Harmon proposition, Col. G, makes the following remarks and correction of our statement in the May number:

"I am glad to see a little stirring up of the true spirit among your contributors and patrons—don't despair. That proposition of Col. Davis, I would, however, rather amend by saying I would be one of 100 to get 10 new subscribers each to the Farmer and Planter. But I must beg you to take back that 'authorized to say.' I will be one of the competitors for the Harmon prize. I only meant that you might put me down for one of the subscribers to make up the prize."

Well, we stand corrected, and our readers will take due notice and govern themselves accordingly. The offer to subscribe to make up the prize without intending to compete for it, is certainly liberal in Col. G., and were we one of the competitors desiring only to win it, we should be glad of it, for we have found out he is "right hard to beat." We had supposed that none were expected to subscribe but such as intended writing; but this is a new feature, and a very important one to insure success in making up the amount proposed to be raised; and to follow so good an example, *we will also be a subscriber* to make up the prize. The amendment proposed to be made by our friend to Col. Davis' proposition, *we* could most cheerfully second, could we have faith in carrying it, but in that matter we have already "despaired." It is useless to hint at such a proposition in our State, though it might and would be done for their own paper in other States, rather than see it go down for the want of patronage.

Persons intending to compete for the premiums offered on corn, should notice the above correction of an error in the published list.

Report on Mrs. DeVeaux's Cotton.

By referring to our Feb. No., page 45, it will be seen that Mrs. DeVeaux, of St Matthews, received the premium of $30 on the largest production of cotton on five acres, being 12,932 pounds. A report of the culture and management, and certificates of quantity produced of said cotton, was handed us sometime since by the Secretary, Col. Gage, which has been mislaid. Col. G. recently sent us a memorandum copied from the farm book of Mr. Crosswell, the manager of Mrs. DeVeaux, which is as follows;

"Five acres of Boyd's Prolific Cotton. Rows 3½ feet apart, cotton left standing 19 inches apart. Eight loads of cow-lot manure put in the furrow and ridged on. May 15th, The middles split and one side drawn up. June 2nd, Barred and 40 bushels of cotton seed mixed with earth put down to the acre, and two furrows thrown on it. June 10th, Split out every other middle, and one side drawn* up. June 18th, The other middle split out and side drawn. July 2nd., Plowed twice in a row. (Two furrows in a row?—Ed.) July 6th, Every other middle split with a sweep, and one side drawn up. July 16th, The other middle split out and side drawn up.

*The earth drawn from the centre of the space to one side of each row, as we understand it.—Ed.

For the Farmer and Planter.

Hog Spaying, &c.

Mr. Editor:—I see from the last Farmer and Planter that you have facts to show that our informant has undoubteely made a slight mistake when he said that "it is certain death to the animal after Leo down to Capricornus." Well, I do not suppose for a moment that he meant *that sentence* as an absolute declaration, but as a sweeping declaration, which of course would admit of some qualifications. He probably spoke too extravagantly—he should have modified his language. But what he wished to teach was simply this: that this was the very worst time for spaying hogs, and that if they did escape death, they never seemed to thrive and grow as those spayed at the proper time, and never would make as fine hogs. However, this is very easily proven. Major, suppose you have one spayed when the sign is in the knees, and one when it is in the bowels, and report through the Farmer and Planter. As I said before, my faith in signs is very weak. I never believe anything without sufficient evidence. This man's success has given me a wavering faith in his belief of it. But if you can produce the proof that these things are not

so, I will not be long divesting myself of this wind-shaken faith I now possess.

Yours, very truly, PLOW STOCK.

Murray's Ferry P. O., S. C., May 11th, '58.

REMARKS.—We would remark on the above, that we have had hogs spayed when the sign was in the bowels, in the knees, in the head, and in the heart, and very probably at times when it was in the other parts of the body with which it is said to interfere. Sometimes we have lost hogs from spaying—we recollect once when the sign was in the heart, we lost more than usual, but we attributed it to the want of skill in the operator, instead of the signs being at that particular place. We must admit, however, having all our life heard so much said about the influence of the sign, both in castrating and spaying, that we would prefer operating when the sign is receeding from rather than approaching the bowels or secrets; though we have known many successful operators that paid no attention to the sign. We once heard an old man say that the weather being favorable, he considered a sharp knife the best sign, and we doubt not much depends on the state of the weather at the time, and following the operation. We should be pleased to find a man that could successfully spay cows.

THE FARMER AND THE MERCHANT.—The independence of the farmer is too apparent to require elaborate illustration, and we have frequently commented upon the pursuit of agriculture to the thousands of young men who crowd our cities, and warehouses, as clerks, salesmen, book-keepers, &c. We say go till the ground, and if you do not make over two hundred thousand dollars a year, you may rest assured that a panic or revulsion will not sweep away in a day the crops of your farm; and what is more, your life will be prolonged, and you will be happier because a better man. The merchant manufacturer may be robbed of the reward of his labor by change in the foreign or domestic market, entirely beyond his control and may wind up a year in which he has done everything which intelligence and industry could do to insure success, not only without profit, but with an actual diminution of capitol. The strong arm of mechanical industry may be enfeebled or paralized by prostration of those manufacturing or commercial interests to whose existence it so essentially contributes, and in whom it so essentially depends. But what has the intelligent and industrious farmer to fear? His capitol is invested in the solid ground. He draws on a fund which has never wholy suspended or repudiated; his success depends on no earthly guarantee, but on the assurance of the great beneficient Being who has declared that while earth endureth, seed time and harvest shall not cease.—*Hunt's Magazine.*

THE SORGHO MOLASSES.—Gen. Daniel Wallace writes to the Unionville Journal:

It is known to the public, I believe, that during the last summer I made several hundred gallons of molasses from the juice of the Chinese Sugar Cane.

I understand a report is abroad that my crop of molasses has become sour, and therefore worthless. So far as myself is concerned, I care nothing for the said report. Knowing from experience, however, that the Chinese Sugar Cane plant is a very valuable one to every class of our people, I deem it due to the public interest to say that the said report is untrue in every particular.

My molasses were of the most superior quality when first made, and so far from having deteriorated in quality from any cause, they appear to have improved from the effects of time, until I feel warranted in saying, they are now equal, if not superior to any syrup manufactured in America. D. WALLACE.

From the New England Farmer.

Heated Rooms.

Physiologists, one and all, agree that for health's sake, the breathing of pure air is of the utmost importanee; say they, "Whatever makes the air impure, makes the blood impure, and from impurities of the blood originate nearly every disease, hence the sick person taking medicines, and at the same time breathing impure air, labors under the same disadvantage as the man, who being afflicted with the gout, adopts a medical course of treatment, and at the same time indulges in luxurious living, which was the first and only cause of his disease; in either case, the former course may act as a curative, while the latter is sure to excite disease."

Now in regard to our dwellings, we pursue very much the same course; in winter we shut up ourselves in small heated rooms in order to keep warm, forgetting that an ordinary man consumes a hogshead of air every hour, and that the stove takes up oxygen, the vital principle of air, twice as fast as a man does; think of it, reader! a hogshead an hour for one person, and judge yourself of how many persons there are to breathe therein. Still you pursue this course, and cough and croup the winter through, and are ready to believe that the human race is fast degenerating, or that the climate has undergone some sad change.

F.

A NEW FOOD FOR BEES.—Two agriculturists of the Department of the War observed one day, in the month of May last, that all their bees had left their hives although the latter were well filled and exceedingly heavy. Towards evening the fugitives returned heavily laden, but on the following morning set out again in a direction which was this time carefully noted by the farmers, who had been watching their doings.—They immediately followed them, and soon arrived at a farm where cakes of tilseed, which had been previously subjected to the oil-press, were being beaten up into a paste with water, to be used as manure for potatoes. There, to their surprise, they saw their bees clustering round the tubs containing the paste, evidently enjoying a luxury hitherto unknown to them. The lesson was not lost upon the agriculturists, who immediately procured their bees abundance of this

food, and have been rewarded with nearly ten times the usual quantity of produce, besides an immense increase in the reproduction of the insect.—*Mark Lane Express.*

KEEPING THE TEETH CLEAN.—Microscopical examinations have been made of the matter depsited on the teeth and gums of more than forty invidiuals, selected from all classes of society, in every variety of bodily condition, and in nearly every case animal and vegetable parasites in great numbers have been discoverd. Of the animal parasites there were three or four species, and of the vegetable one or two. In fact, the persons whose mouths were found to be completely free from them, cleansed their teeth four times daily, using soap once. One of these individuals also passed a thread betweed the teeth to cleanse them more effectually. In all cases the the number of the parasites was greater in proportion to the neglect of cleanliness. The effect of the application of various agents was also noticed. Tobacco juice and smoke did not injure their vitality in the least. The same was true of the chlorine tooth wash, of pulverized bark, of soda, ammonia, and various popular detergents. The application of soap, however, appeared to destroy them instantly. We may hence infer that this is the best and most proper specific for cleaning the teeth. In all cases where it has been tried it receives unqualified commendation. It may be proper to add that none but the purest white soap, free from discoloration, should be used.

CURE FOR BONE SPAVIN.—*Eds. Northwestern Farmer:*—I noticed in your last number (Sept.) an inquiry for a cure for bone spavin. Having in my possession a receipt which I have seen tried, and believe to be superior to any remedy known by our veterinary surgeons, I concluded to send you the same, which you may publish if you think proper.

Take of cantharides, 2 ozs., mercurial ointment, 4 ozs., tincture of iodine, 3 ozs., turpentine, 4 ozs., crrosive sublimate, 3 drachms; mix all well with two pounds of lard, color it if you like. Follow the directions here given, strictly.

If for ring bone, or bone spavin, cut off the hair from the part affected, and merely grease the lump with the ointment. Rub it in well with the naked hand. In two days, grease the part with lard, and in four days wash with soap and water, and apply the ointment again. So repeat it every four days. If for windgalls, or bog-spavin, or curb, apply the ointment every six days. F. D. LAY.

St. Charles, M. T.

WATERPROOFING FOR BOOTS AND SHOES.—Linseed oil, one pint; oil of turpentine or camphene, a quarter of a pint; yellow wax, a quarter of a pound; Burgundy piteh, a quarter of a pound. To be melted together with a gentle heat, and when required for use, to be warmed and well rubbed into the leather before the fire, or in the hot sun. Should be poured, when melted into small galli-pots or tin boxes for sale.

RULES FOR FATTENING ANIMALS.—1. Let them have good, clean, nourishing food. 2. Feed them with utmost regularity as to time—for "hope deferred" wastes flesh by fretting. 3. Feed often, and never give a surplus. 4. Let the pen or stable be kept clean and sweet—dirt or filth is always adverse to thrift. 5. Let the air be fresh and pure. 6. They should have *rest* most of the time, and only very gentle exercise. 7. Keep them tranquil, and avoid fright and anxiety. If these are carefully observed, they will make a vast differenee in results.—*Tucker's Annual Register.*

PLOWING.—The depth of the plowing should be regulated by the quality of the soil. It might prove a serious injury to some fields to turn up at one plowing two or three inches of the dead, inert, irony subsoil. And it might not be good economy to plow at once, even a good soil, two or three inches deeper than previous plowings, unless an extra quantity of manure can be applied. As a general rule, it is the safest way to gradually deepen the soil at each successive plowing, till the required depth is obtained.

ASPARAGUS BEDS.—As soon as the hard frosts are over, the asparagus beds should be put in good order, by forking in the manure and raking them off nicely. The covering, too, should be removed from the strawberry beds. The old canes of raspberries should be cut away, and the young ones cut back and tied up. If the new canes are strong, they may be cut back to about four feet in length, but if weak, should be cut shorter. When plants have grown in one place for several years, a good many canes will be produced from one plant or stool. In this case the weakest should be cut, allowing only four or five of the strongest to remain, and these must be cut back to four feet.

CLEAN UP YOUR DOOR YARDS.—Clean up the door yards, and rake into a pile the saw dust, chips, &c., that have accumulated during the winter. If you had some corner in a shed where you placed it under cover, and get the women to throw all the waste water from the house upon it, by the Fall it will make a manure pile as rich as guano, without any outlay, except of a little good sense. If the pile is not large enough to absorb all the water from the house, add a load of peaty muck or any old turf. In this way a nuisance is turned into money, for nothing looks more slovenly than an untidy door-yard.

SHEEP.—All that is necessary to do with ewes in lamb is to allow them a suffieiency of fresh grass, shifting them from one part of the farm to another, so as to prevent the land from getting foul. Keeping merely in fresh condition is much more preferable than giving them such keeping as will fatten them; for in this case there is a greater risk from inflamation at lambing time, and the lambs of fat ewes are always small. Sheep intended for the butcher, or young sheep—that is, lambs of the past season—require to be kept differently, receiving an allowance of turnips.—*English paper.*

Sore Throat.—I have been subject to sore throat, and have invariably found the following preparation (simple and cheap) highly efficacious when used in the early stage. Pour a pint of boiling water upon twenty-five or thirty leaves of common sage, let the infusion stand for half an hour. Add vinegar sufficient to make moderately acid, and honey according to the taste. This combination of the astringent and the emolient principle seldom fails to produce the desired effect. The infusion must be used as a gargle several times a day. It has this advantage over many gargles—it is pleasant to the taste, and may be swallowed occasionally, not only without danger, but with advantage.

Remedy for the Striped Bug.—Having but few boards at hand suitable for making frames, but plenty of old bricks, I took a wheelbarrow load of the latter, and stood four or five of them on edge around each hill of melons, etc., as soon as the young plants made their appearance; and in ten days' trial I have not found a bug inside these little pens, while some plants outside were entirely devoured by them. The bricks also promote the growth of the young plants, by protecting from winds, and giving out heat at night absorbed during the day.—*Exchange.*

Selecting Trees.—In making your selection, see how much new wood was made last season in the nursery, that the bark is smooth and clean; and especially that the main roots are furnished with abundance of fibres, growing in masses, showing that the tree has been subject to root pruning in its past cultivation. One such tree is worth a dozen thriftless articles, covered with scale bugs, and deprived of half their roots.—*Homestead.*

To Cure Founders in Horses.—Sun flower seeds are said to be the best known remedy for founder in horses. As soon as ascertained he is foundered, mix one pint of the seed whole with the feed, and an entire cure may be expected.

Rats.—When a house is infested by rats which refuse to nibble at toasted cheese and the usual baits, a few drops of the highly scented oil of rhodium, poured on the bottom of a cage-trap, will almost invariably attract it full of the "mischievous rodents" before morning. We have known this to be tried with most extraordinary success. Where a trap baited with all manner of edibles had failed to attract a single rat, the oil of rhodium caused it to be completely crowded night after night, until the house was cleared of the noisome visitors.

A Positive Cure for Corns.—The strongest acetic acid, applied night and morning with a camel's hair brush. In one week the corn will disappear. Soft or hard corns.

A Cure for Weak and Sore Eyes.—Sulphate of zinc three grains, tincture of opium ten drops, water two ounces. To be applied three or four times a day.

Ladies' Department.

From the New England Farmer.

Woman a Slave in her own House.

The late Gov. Hill, of New Hampshire, in his *Family Visitor*, while remarking on the importance of improving, to the utmost, the character of our butter, gave as a reason for having it nicely prepared, that it had already been a component part of all our dishes. But the admixture of butter with farinaceous and and other preparations is not the only violation of nature's simplicity. Sugar, molasses, lard, saleratus, eggs, and many other things which might be named, are used in large quantities. The French are said to have no less than 685 dishes of which eggs form a part; and if we have, as yet, not quite so many, it can hardly be said of us that we are not fast coming up with them. But it seldom happens that our food is so simple as to contain but one foreign ingredient—whether eggs, butter or anything else. What were once the plainest, simplest dishes, are often quite compounded.

Time was—and that, too, within our own remembrance—when, in very large portions of our country, no housekeeper, in preparing raised bread, (and very little was used of any other kind) made use of anything but the needful yeast or leven; not even common salt.—Occasionally, it is true, through carlessness or neglect, the fermentation was allowed to proceed too far before the baking process commenced; and the result was a greater or less degree of acidity; though this seldom happened once in a quarter of a year, and in some families almost never. But "times are altered." Bread, unsalted, would, in most places, be intolerable; nor would it, in many families, be regarded as fit to eat without saleratus. Besides these, our farmers' wives, who have plenty of milk, frequently wet their meal with it; and in making several kinds of bread, they add to all these molasses. I have even, in some places at the South and South-west, seen bread to which a small quantity of flesh meat, finely chopped, had been added. It was called crackley bread.

Just think of this, Mr. Editor, for a moment. Here, in the more common forms of what is justly called the staff of life, salt, saleratus, molasses and milk, to say nothing of the substance which is usually added as a ferment, or of the acetic acid, which, in order to prepare the way for saleratus, as well as to have a large loaf, is often developed before the bread is set to the oven! Including the last two, and we

have an admixture of no less than seven ingredients, in order to the formation of what was once, and ever ought to have remained, a simple loaf of bread And thus it seems to be, all the way from our most simple articles up to Mrs. Leslie's mince pies, composed of no less than eighteen ingredients! And then let me say a word as to the quantity of these foreign ingredients. I can remember—perhaps you can—when from a quarter of a pound to a pound of saleratus or of pearl ash used to suffice for alkali a whole year, in any ordinary New England family. Or, if to this any additions were ever made, it consisted of a little ashes, neatly prepared by burning a few cobs of Indian corn. But now how stands the case? The mother and housekeeper of a well known family of Fitchburg told me a few years ago, in the presence of her husband, and after careful consultation with him, that she made use, in cooking, of no less than twenty-five pounds of saleratus in a year. And yet the family consisted only of ten persons—about one-half of whom were children. This, I admit, is an extreme case; at least I would fain hope so. Yet there are thousands of families of five, six or seven persons, that come nearly half way up to it—that is, they use at least ten or twelve pounds. Indeed, from much observation on this subject in different portions of the United States, I am of opinion that the average amount of this alkali which is used in cookery, can hardly be less than eight pounds. For should it be said that there are many indigent families who cannot afford it, my reply is that the poor are usually among the last to dispense with such a luxury as this. I speak of the past and present, however; for what will be done the coming winter, I do not attempt to predict.

Wm. A. Alcott.

Auburndale, Nov. 12th, 1857.

Ginger Beer.—The following recipe for making a very superior ginger beer is taken from the celebrated treatise of Dr. Pereira, on diet. The honey gives it a peculiar softness, and from not being fermented with yeast, it is less violent in its actions when opened, but requires to be kept a longer time than usual before use. White sugar, five pounds; lemon juice, one quarter of a pint; honey, one quarter of a pound; ginger, bruised, five ounces; water, four gallons and a half. Boil the ginger in three quarts of water, for half an hour, then add the sugar, lemon juice, and honey, with the remainder of the water, and strain through a cloth; when cold, add a quarter of the white of an egg, and a small teaspoonful of essence of lemon; let the whole stand four days, and bottle; this will keep many months. This quantity will make 100 bottles.

Domestic Yeast.—Ladies who are in the habit (and a most laudable and comfortable habit it is) of making domestic bread, cake, &c., are informed that they can easily manufacture their own yeast by attending to the following directions: Boil one pound of good flour, a quarter of a pound of brown sugar, and a little salt, in two gallons of water, for one hour. When milk warm, bottle it, and cork it close. It will be fit for use in twenty-four hours. One pint of this yeast will make 18 lbs. of bread.

How to Make Lard Candles.

Messrs. Editors:—Having been the recipient of many favors through the columns of your invaluable publications, I propose, as far as in me lies, to cancel the obligations already incurred, and as the first installment I shall offer a receipt for making hard, durable, and clear-burning candles of lard. The manufacture of lard candles is carried on to a considerable extent in some of the western States, particularly Wisconsin, and being monopolized by the few, has proved very lucrative. The following is the receipt in toto. To every 8 lbs. of lard, add one ounce nitric acid; and the manner of making is as follows: Having carefully weighed your lard, place it over a slow fire, or at least merely melt it; then add the acid, and mould the same as tallow, and you have a clear, beautiful candle.

In order to make them resemble bona-fide tallow candles, you have only to add a small proportion of pure beeswax:

J. A. Robinson.

Belcher, N. Y. [*Country Gentleman.*

Two Receipts for making Vinegar.—Fill large glass bottles with weak tea, which may be what is left after drinking. Add a small quantity of sugar or molasses, and set them in a warm place, say in a window where the sun shines. In a fortnight it will be fit for use, and is as good as cider vinegar.

Take a pan of sour, thick milk; break it so that the whey will rise to the top. Fill a glass bottle with the whey, and to every quart add one-half cup of sugar. Set it in a warm place, and in a few days it will be fit for use.—*Dollar Newspaper.*

Pickling Eggs.—If the following pickle were generally known it would be more generally used. We constantly keep it in our family, and find it an excellent pickle to be eaten with cold meat, &c. The eggs should be boiled hard (say ten minutes), and then divested of their shells; when *quite cold* put them in jars, and pour over them vinegar (sufficient to quite *cover* them), in which has been previously boiled the usual spices for pickling; tie the jars down tight with bladder, and keep them till they begin to change color.

An Excellent Gingerbread.—A friend on whom we recently called, treated us to a nice slice of gingerbread, which was made after a little different receipt from any we have published, we believe, to wit: Take one pint of molasses, one teaspoonful of soda, half a teaspoonful of pulverized alum dissolved in a little water, two tablespoonsful of ginger; the whole mixed thoroughly with enough flour to roll out and cut into cards. Bake in a quick oven. *Mem.* The mixing should be done rapidly and not until the oven is already hot, so that the baking can be done at once and quickly.